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**COMPREHENSIVE LONG-TERM ENVIRONMENTAL
ACTION NAVY
CLEAN 3**

**FINAL
UPDATED TANK MANAGEMENT PLAN
NAVAL AIR FACILITY EL CENTRO
EL CENTRO, CALIFORNIA**

**CTO-0075/0040
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SUMMARY

This Updated Tank Management Plan (TMP) applies to petroleum storage tanks at Naval Air Facility (NAF) El Centro. Its purpose is twofold:

- summarize the current status of former underground storage tank (UST) sites with respect to closure requirements, and
- summarize information on aboveground storage tanks (ASTs), identify compliance with requirements, and prevent future releases to the environment.

A total of 202 known or suspected UST sites have been identified that are on property currently or previously controlled by NAF El Centro. None of the USTs are currently active. The goal of the UST program at NAF El Centro is permanent closure of all UST sites. These sites may be divided into five categories (UST 531 is included in two categories):

1. closed sites (71)
2. sites pending closure with requests submitted to California Regional Water Quality Control Board (42)
3. sites considered for further action (51)
4. sites dropped from the tank program (13)
5. sites to be addressed under the Formerly Used Defense Sites Program (26)

Table S-1 provides the closure status for former UST sites with references to their locations on figures, tables, and sections within this TMP containing further information. Supporting data and rationale are presented in Tank Closure Summaries (Appendix A), in Site Assessment Report and Closure Summaries (Appendix B), and in the removal and investigation reports cited in Section 4 (References).

ASTs contain all petroleum currently stored at NAF El Centro. A total of 42 ASTs have been identified. The Aboveground Petroleum Storage Act presents requirements for managing ASTs. The following recommendations are made for ASTs at NAF El Centro:

- file storage statements with the State Water Resources Control Board every 2 years
- maintain and implement the Spill Prevention Control and Countermeasure Plan
- conduct daily visual inspections of ASTs with a capacity of 10,000 gallons or more and monthly visual inspections of smaller ASTs
- follow spill notification procedures provided in the Spill Prevention Control and Countermeasure Plan

The Spill Prevention Control and Countermeasure Plan for NAF El Centro (SWDIV 1999) states specific measures to prevent future releases of petroleum to the environment. The information provided therein supplements this TMP with regard to ASTs.

Table S-1
UST Location and Closure Status

Tank Site ID	Alias	Location^a	Closure Status	Table(s)	Section(s)
110		Area 8	Closed	Table 2-1	2.1.2
114		Area 8	Consider further action	Table 2-3	2.4.2
116		Area 8	Closure recommended ^b	Table 2-2	2.1.3
116 A		Area 8	Dropped from tank program	Table 2-5	2.6
117		Area 6	Consider further action	Table 2-3	2.4.2
120		Area 1	Closed	Table 2-1	2.2
121		Area 6	Closed	Table 2-1	2.2
125		Area 6	Closure recommended ^c	Table 2-2	2.3.1
126		Area 6	Closure recommended ^c	Table 2-2	2.3.3
129		Area 6	Closed	Table 2-1	2.2
130		Area 6	Closed	Table 2-1	2.2
133		Area 6	Closed	Table 2-1	2.2
136		Area 6	Closed	Table 2-1	2.2
137		Area 6	Closed	Table 2-1	2.2
141		Area 6	Closed	Table 2-1	2.2
144		Area 6	Closure recommended ^c / UST not located	Tables 2-2/ 2-4	2.3.1/2.5
145		Area 6	Closed	Table 2-1	2.1.2
165		Area 6	Closed	Table 2-1	2.2
198		Area 2	Consider further action	Table 2-3	2.4.2
200 (N)		Area 10	Closure recommended ^b	Table 2-2	2.1.3
200 (S)(1)		Area 10	Closure recommended ^b	Table 2-2	2.1.3
200 (S)(2)		Area 10	Closure recommended ^b	Table 2-2	2.1.3
200 (W)(3)	200 (E)	Area 10	Closure recommended ^b	Table 2-2	2.1.3
214		Area 8	Closed	Table 2-1	2.2
214 A		Area 8	Consider further action; UST suspected in this area based on geophysical data	Tables 2-3/ 2-4	2.5
221		Area 8	Closure recommended ^c	Table 2-2	2.3.1
227		Area 8	Closure recommended ^c	Table 2-2	2.3.1
229		Area 8	Dropped from tank program	Table 2-5	2.6
272 A	200	Area 10	Closure recommended ^b	Table 2-2	2.1.3
272 B		Area 10	Closure recommended ^b	Table 2-2	2.1.3
272 C	200 (W)	Area 10	Closure recommended ^b	Table 2-2	2.1.3
285		Area 8	Consider further action	Table 2-3	2.4.4
312.1		Area 7	Closed	Table 2-1	2.2
312.2	311	Area 7	Closure recommended ^c	Table 2-2	2.3.1
315		Area 7	Consider further action	Table 2-2	2.4.2

(table continues)

Summary

Table S-1 (continued)

Tank Site ID	Alias	Location ^a	Closure Status	Table	Section
319		Area 7	Closed	Table 2-1	2.2
322		Area 7	Consider further action/ UST not located	Tables 2-3/ 2-4	2.5
323		Area 7	Consider further action/ UST not located	Tables 2-3/ 2-4	2.5
324		Area 9	Closed	Table 2-1	2.2
325		Area 9	Closed	Table 2-1	2.2
326		Area 9	Consider further action/ UST not located	Tables 2-3/ 2-4	2.5
327		Area 9	Closure recommended ^c / UST not located	Tables 2-2/ 2-4	2.3.1/2.5
328		Area 9	Consider further action	Table 2-3	2.4.4
331		Area 8	Consider further action	Table 2-3	2.4.4
332 (F)		Area 9	Closed	Table 2-1	2.2
333		Area 9	Consider further action	Table 2-3	2.4.4
337 (G)(E)		Area 9	Closed	Table 2-1	2.2
337 (G)(N)		Area 9	Closed	Table 2-1	2.2
337 (G)(W)		Area 9	Closed	Table 2-1	2.2
359		Area 7	Closed	Table 2-1	2.2
359 A		Area 8	Dropped from tank program	Table 2-5	2.6
359 B		Area 7	Dropped from tank program	Table 2-5	2.6
364		Area 7	Closure recommended ^c	Table 2-2	2.1.2
375 (S)		Area 7	Closure recommended ^c	Table 2-2	2.3.1
375 (W)		Area 7	Closure recommended ^c	Table 2-2	2.3.1
386	329	Area 9	Closure recommended ^c	Table 2-2	2.3.1
400		Area 6	Consider further action	Table 2-3	2.4.2
400 (A)(1)		Area 5	Consider further action	Table 2-3	2.4.3
400 (B)(2)		Area 5	Consider further action	Table 2-3	2.4.3
409 (N)		Area 6	Closure recommended ^c	Table 2-2	2.3
409 (S)		Area 6	Closure recommended ^c	Table 2-2	2.3
410		Area 7	Closed	Table 2-1	2.1.2
417		Unknown	Dropped from tank program	Table 2-5	2.6
421		Area 5	Closure recommended ^c	Table 2-2	2.3.3
422		Area 5	Closed	Table 2-1	2.2
423		Area 5	Closure recommended ^c	Table 2-2	2.3.3
425		Area 6	Closure recommended ^c	Table 2-2	2.3.1

(table continues)

Table S-1 (continued)

Tank Site ID	Alias	Location ^a	Closure Status	Table	Section
425 A		Area 6	Dropped from tank program	Table 2-5	2.6
427		Area 6	Closed	Table 2-1	2.2
427 A		Area 6	Dropped from tank program	Table 2-5	2.6
428		Area 5	Closure recommended ^c	Table 2-2	2.3.1/2.5
429		Area 5	Closure recommended ^c	Table 2-2	2.3.3
431		Area 5	Closure recommended ^c	Table 2-2	2.3.3
432		Area 6	Closed	Table 2-1	2.2
433		Area 5	Closed	Table 2-1	2.2
434		Area 5	Closed	Table 2-1	2.2
435		Area 5	Closure recommended ^c	Table 2-2	2.3.3
436		Area 5	Closed	Table 2-1	2.2
437		Area 6	Closed	Table 2-1	2.2
438	486	Area 5	Consider further action	Table 2-3	2.4.4
439		Area 5	Closed	Table 2-1	2.2
441		Area 6	Closure recommended ^c	Table 2-2	2.3.1
442		Area 5	Closed/ UST not located	Tables 2-1/2-4	2.2/2.5
443		Area 5	Closure recommended ^c	Table 2-2	2.3.1/2.5
444		Area 6	Closure recommended ^c / UST not located	Tables 2-2/2-4	2.3.3/2.5
445		Area 5	Closed	Table 2-1	2.2
446		Area 6	Closed	Table 2-1	2.1.2
447 (O)		Area 4	IR Site 7 remediation	Table 2-3	2.4.1
448 (J)		Area 4	IR Site 7 remediation	Table 2-3	2.4.1
449 (P)		Area 4	IR Site 7 remediation	Table 2-3	2.4.1
451 (K)		Area 4	IR Site 7 remediation	Table 2-3	2.4.1
452 (Q)		Area 4	IR Site 7 remediation	Table 2-3	2.4.1
453 (R)		Area 4	IR Site 7 remediation	Table 2-3	2.4.1
454 (L)		Area 4	IR Site 7 remediation	Table 2-3	2.4.1
455 (M)	445	Area 4	IR Site 7 remediation	Table 2-3	2.4.1
456 (S)	446	Area 4	IR Site 7 remediation	Table 2-3	2.4.1
457 (N)		Area 4	IR Site 7 remediation	Table 2-3	2.4.1
458 (T)		Area 4	IR Site 7 remediation	Table 2-3	2.4.1
459		Area 5	Closed	Table 2-1	2.2.2
461		Area 4	IR Site 7 remediation	Table 2-3	2.4.1
462		Area 4	IR Site 7 remediation	Table 2-3	2.4.1
463		Area 4	IR Site 7 remediation	Table 2-3	2.4.1
464		Area 4	IR Site 7 remediation	Table 2-3	2.4.1

(table continues)

Summary

Table S-1 (continued)

Tank Site ID	Alias	Location ^a	Closure Status	Table	Section
465		Area 4	IR Site 7 remediation	Table 2-3	2.4.1
466		Area 4	IR Site 7 remediation	Table 2-3	2.4.1
467		Area 4	IR Site 7 remediation	Table 2-3	2.4.1
468		Area 4	IR Site 7 remediation	Table 2-3	2.4.1
469		Area 4	IR Site 7 remediation	Table 2-3	2.4.1
471		Area 4	IR Site 7 remediation	Table 2-3	2.4.1
472		Area 4	IR Site 7 remediation	Table 2-3	2.4.1
473		Area 4	IR Site 7 remediation	Table 2-3	2.4.1
484		Area 4	Closure recommended ^c	Table 2-3	2.4.1
485		Area 7	Consider further action	Table 2-3	2.4.2
490		Area 7	Closed	Table 2-1	2.1.2
492		Area 3	Closed	Table 2-1	2.2
510		Area 11	Closure recommended ^c	Table 2-2	2.5
513		Area 11	Closed	Table 2-1	2.2
516		Area 11	Dropped from tank program	Table 2-5	2.6
525		Area 11	Closure recommended ^c / UST not located	Tables 2-2/ 2-4	2.3.1/2.5
526		Area 11	Closed/ UST not located	Tables 2-1/2-4	2.2/2.5
528		Area 11	Consider further action	Table 2-3	2.4.2
529		Area 11	Consider further action	Table 2-3	2.4.4
531		Area 11	Consider further action; UST suspected in this area based on geophysical data ^d	Tables 2-2/2-3/ 2-4	2.3.3/2.5
533		Area 11	Closure recommended ^b	Table 2-2	2.1.3/2.3.2
534		Area 11	Closed	Table 2-1	2.2
534A		Area 11	Consider further action for UST suspected in this area based on geophysical data ^e	Tables 2-3/2-4	2.5
535		Area 11	Consider further action	Table 2-3	2.4.2
537		Area 11	Consider further action	Table 2-3	2.4.4
539		Area 11	Closure recommended ^b	Table 2-2	2.1.3/2.3.2
540 (A)(N)		Area 11	Closed	Table 2-1	2.2
540 (B)(S)		Area 11	Closed	Table 2-1	2.2
541 (N)		Area 11	Closure recommended ^c	Table 2-2	2.3.3
541 (S)		Area 11	Closure recommended ^c	Table 2-2	2.3.3
542		Area 11	Closure recommended ^c	Table 2-2	2.3.3
542 (C)		Area 11	Closure recommended ^c	Table 2-2	2.3.3

(table continues)

Table S-1 (continued)

Tank Site ID	Alias	Location ^a	Closure Status	Table	Section
543		Area 11	Closure recommended ^c / UST not located	Tables 2-2/ 2-4	2.3.3/2.5
545 (D)		Area 11	Closed	Table 2-1	2.2
546		Area 12	Closed/ UST not located	Tables 2-1/2-4	2.2/2.5
547		Area 12	Consider further action/ UST not located	Tables 2-3/ 2-4	2.4.2/2.5
548 (E)		Area 11	Closed	Table 2-1	2.2
550		Area 11	Consider further action/ UST not located	Tables 2-3/ 2-4	2.4.2/2.5
551		Area 11	Consider further action/ UST not located	Tables 2-3/ 2-4	2.4.2/2.5
551 (I)(N)		Area 11	Consider further action	Table 2-3	2.4.2
554		Area 11	Consider further action	Table 2-3	2.4.4
601		Area 12	Closed	Table 2-1	2.2
602		Area 12	Closed	Table 2-1	2.2
603		Area 12	Closed	Table 2-1	2.2
604		Area 12	Closed	Table 2-1	2.2
605		Area 12	Closed	Table 2-1	2.2
606		Area 12	Closed	Table 2-1	2.2
607		Area 12	Closed	Table 2-1	2.2
608		Area 12	Closed	Table 2-1	2.2
609		Area 12	Closed	Table 2-1	2.2
610		Area 12	Closed	Table 2-1	2.2
611		Area 12	Closed	Table 2-1	2.2
612		Area 12	Closed	Table 2-1	2.2
613		Area 12	Closed	Table 2-1	2.2
614		Area 12	Closed	Table 2-1	2.2
615		Area 12	Closed	Table 2-1	2.2
616		Area 12	Closed	Table 2-1	2.2
617		Area 12	Closed	Table 2-1	2.2
618		Area 12	Closed	Table 2-1	2.2
619		Area 12	Closed	Table 2-1	2.2
Apron A		Area 6	Dropped from tank program	Table 2-5	2.6
Apron B		Area 6	Dropped from tank program	Table 2-5	2.6
Apron C		Area 6	Dropped from tank program	Table 2-5	2.6
H		Area 10	Dropped from tank program	Table 2-5	2.6

(table continues)

Summary

Table S-1 (continued)

Tank Site ID	Alias	Location ^a	Closure Status	Table	Section
OH-01		Off-Base ^f	Address under FUDS	Table 2-6	2.7
OH-02		Off-Base	Address under FUDS	Table 2-6	2.7
OH-03		Off-Base	Address under FUDS	Table 2-6	2.7
OH-04		Off-Base	Address under FUDS	Table 2-6	2.7
OH-05		Off-Base	Address under FUDS	Table 2-6	2.7
OH-06		Off-Base	Address under FUDS	Table 2-6	2.7
OH-07		Off-Base	Address under FUDS	Table 2-6	2.7
OH-08		Off-Base	Address under FUDS	Table 2-6	2.7
OH-09		Off-Base	Address under FUDS	Table 2-6	2.7
OH-10		Off-Base	Address under FUDS	Table 2-6	2.7
OH-11		Off-Base	Address under FUDS	Table 2-6	2.7
OH-12		Off-Base	Address under FUDS	Table 2-6	2.7
OH-13		Off-Base	Address under FUDS	Table 2-6	2.7
OH-14		Off-Base	Address under FUDS	Table 2-6	2.7
OH-15		Off-Base	Address under FUDS	Table 2-6	2.7
OH-16		Off-Base	Address under FUDS	Table 2-6	2.7
OH-17		Off-Base	Address under FUDS	Table 2-6	2.7
OH-18		Off-Base	Address under FUDS	Table 2-6	2.7
OH-19		Off-Base	Address under FUDS	Table 2-6	2.7
OH-20		Off-Base	Address under FUDS	Table 2-6	2.7
OH-21		Off-Base	Address under FUDS	Table 2-6	2.7
OH-22		Off-Base	Address under FUDS	Table 2-6	2.7
OH-23		Off-Base	Address under FUDS	Table 2-6	2.7
OH-24		Off-Base	Address under FUDS	Table 2-6	2.7
OH-25		Off-Base	Address under FUDS	Table 2-6	2.7
OH-26		Off-Base	Address under FUDS	Table 2-6	2.7
Pipeline North		Area 6	Closed	Table 2-1	2.2
Pipeline South		Area 8	Closed	Table 2-2	2.2
R-2512 (A)	R-68	Remote ^f	Closed	Table 2-1	2.2
R-2512 (B)	R-95	Remote	Closed	Table 2-1	2.2
R-27 (B)		Remote	Closed	Table 2-1	2.2
Range 5000-1 (A)		Remote	Closed	Table 2-1	2.2
Range 5000-2 (B)		Remote	Closed	Table 2-1	2.2
Range 5000-3 (C)		Remote	Closed	Table 2-1	2.2
SFPPL		Area 12	Dropped from tank program	Table 2-5	2.6

(table continues)

Table S-1 (continued)

Notes:

- ^a refers to area numbers on Figures 2-1 through 2-13
- ^b site closure was recommended in a draft report submitted to the RWQCB (BEI 2005)
- ^c site closure has been recommended by PWC; regulatory agency concurrence has not been received
- ^d UST 531 was also recommended for site closure in the draft report submitted to the RWQCB; however, the site will be further investigated due to the recent geophysical results, and therefore its status may change pending further investigation
- ^e potential additional UST, designated UST 534A, was detected nearby UST 534
- ^f off-base and remote locations are not shown on figures

Acronyms/Abbreviations:

FUDS – formerly used defense sites
IR – Installation Restoration (Program)
PWC – (Navy) Public Works Center
RWQCB – (California) Regional Water Quality Control Board
UST – underground storage tank

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- E CALIFORNIA ABOVEGROUND STORAGE TANK PROGRAM INFORMATION**
- F FEDERAL OIL POLLUTION PREVENTION REGULATIONS**
- G NAVY POSITION LETTER**
- H CALIFORNIA SPILL NOTIFICATION GUIDANCE**
- I OPNAVINST 5090.1B CHAPTER 16, STORAGE TANKS**

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- 3-1 Aboveground Storage Tanks

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ACRONYMS/ABBREVIATIONS

APSA	Aboveground Petroleum Storage Act
AST	aboveground storage tank
BEI	Bechtel Environmental, Inc.
BTEX	benzene, toluene, ethylbenzene, total xylenes
Cal. Health & Safety Code	<i>California Health and Safety Code</i>
CFR	<i>Code of Federal Regulations</i>
CLEAN	Comprehensive Long-Term Environmental Action Navy
COC	chemical of concern
COPC	chemical of potential concern
CTO	contract task order
DON	Department of the Navy
GPR	ground-penetrating radar
MCL	maximum contaminant level
MTBE	methyl tert-butyl ether
NAF	Naval Air Facility
NEX	Navy Exchange
PG	professional geologist
PRG	preliminary remediation goal
PWC	Navy Public Works Center
RWQCB	(California) Regional Water Quality Control Board
SCAPS	Site Characterization and Analysis Penetrometer System
SPCC	spill prevention control and countermeasure
SWRCB	(California) State Water Resources Control Board
TMP	tank management plan
TPH	total petroleum hydrocarbons
U.S. EPA	United States Environmental Protection Agency
UST	underground storage tank
VEP	vacuum-enhanced pumping

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Section 1

INTRODUCTION

Bechtel Environmental, Inc. (BEI), has prepared this updated Tank Management Plan (TMP) for Naval Air Facility (NAF), El Centro, California. This plan was prepared under Contract Task Order 0075, issued under the Comprehensive Long-Term Environmental Action Navy 3 Program, Contract No. N68711-95-D-7526, for Naval Facilities Engineering Command Southwest.

1.1 PURPOSE

This TMP compiles updated information on petroleum storage tanks at NAF El Centro. Former underground storage tank (UST) sites and active aboveground storage tanks (ASTs) are discussed separately.

- Section 2 summarizes the current status of former UST sites with respect to closure requirements. There are no active petroleum USTs at NAF El Centro; therefore, the goal is to identify past releases, mitigate their effects on the environment, and close the sites.
- Section 3 describes information on active ASTs, regulatory requirements governing ASTs, and recommendations for compliance with those requirements. The goal is to prevent future releases of petroleum to soil or groundwater.

1.2 BACKGROUND

NAF El Centro is an operational naval facility located approximately 7 miles northwest of El Centro, California, and 85 miles east of San Diego, California (Figure 1-1). Petroleum storage tanks have been used throughout NAF El Centro's history to supply fuel for heaters, generators, equipment, motor vehicles, and aircraft. USTs have been removed over the years and replaced with ASTs as needed. No active petroleum USTs remain at NAF El Centro.

Previous activities at former UST sites have included investigations, tank removals, and remediation. A UST Management Plan developed in 1995 (HLA 1995) summarized the status of the USTs at that time. A Spill Prevention Control and Countermeasure (SPCC) Plan was developed in 1997 and updated in 1999 (SWDIV 1999). The SPCC includes information and spill prevention measures for ASTs.

A comprehensive TMP was developed in 2000 that summarized the status of both USTs and ASTs at NAF El Centro (BNI 2000d). An extensive review of existing maps, drawings, and documents relating to the history of the storage tank program at NAF El Centro was conducted. At that time, NAF El Centro had already completed the transition from USTs to ASTs for storing petroleum products. The status of each inactive UST site with respect to regulatory closure was presented along with an AST status update and discussion of associated regulatory requirements.

1.3 REGULATORY OVERVIEW

California regulations are enforced by the State Water Resources Control Board and the Regional Water Quality Control Board (RWQCB) (Region 7, Colorado River Basin

Region, for NAF El Centro). RWQCB Region 7 is also the lead regulatory agency for AST requirements, which are discussed in Section 3. The Imperial County Planning and Building Department is the local implementing agency for installation, operation, and removal of USTs.

Requirements for permanent closure of a UST stipulate that the tank must be emptied, cleaned, and removed from the ground or filled with an inert solid material. The owner/operator must also measure for the presence of a release by collecting samples for analysis where contamination is most likely to be present. Corrective action is required to remove contamination, if found. Final closure requires either sign-off from the Imperial County inspector that the UST site was clean at the time of removal or a letter from RWQCB indicating that no further action is required.

The *California Health and Safety Code* (Cal. Health & Safety Code), Chapter 6.75, was revised effective 01 January 1998. The legislation specifies that testing for methyl tert-butyl ether (MTBE) must be performed and reported to RWQCB before a UST site closure letter can be issued. MTBE is a gasoline additive that was first used in the United States in 1979. The legislation was revised again in October 1999 to state that MTBE testing is not required whenever RWQCB, the local agency, determines that a tank contained only diesel or jet fuel.

Cleanup levels for chemicals of potential concern (COPC) and/or chemicals of concern (COCs) in soil and maximum allowable levels for groundwater (Table 1-1) were developed for NAF El Centro with concurrence from the RWQCB (OHM 1995). These levels were used to evaluate analytical data and make closure recommendations for the former UST sites.

The soil cleanup concentrations listed in Table 1-1 were based in part on the 1998 United States Environmental Protection Agency (U.S. EPA) Region 9 Preliminary Remediation Goals (PRGs) for industrial soil. The groundwater maximum allowable concentrations were based in part on the 1998 U.S. EPA PRGs for tap water or the 1995 state of California maximum contaminant levels (MCLs) for drinking water (as noted in the Table). Since 1998, the PRGs for industrial soil have changed for MTBE, ethylbenzene, and total xylenes. Additionally, the MCLs for MTBE and ethylbenzene in drinking water have changed. Table 1-1 lists the 2004 updated values for comparison.

It should be noted that due to elevated concentrations of total dissolved solids and low aquifer yields, the shallow groundwater beneath NAF El Centro is not considered a potential source of drinking water by the RWQCB. Therefore, higher groundwater cleanup standards may be applied (subject to RWQCB concurrence) to obtain site closures.

State law governing ASTs can be found in the Cal. Health & Safety Code, Chapter 6.67 (Sections 25270–25270.13) and in Title 40, *Code of Federal Regulations* (CFR), Part 112.

Section 2

FORMER UNDERGROUND STORAGE TANK SITES

This section summarizes the current status of former UST sites (Tables 2-2 through 2-7, Figures 2-1 through 2-13). A total of 202 known or suspected USTs have been identified on property currently or previously controlled by NAF El Centro. None are currently active.

The following subsections group the former UST sites based on their current status within the regulatory process. For planning purposes, emphasis has been placed on sites requiring further action to obtain closure (Section 2.3).

2.1 RECENT ENVIRONMENTAL WORK

Since the previous TMP was issued (BNI 2000d), PWC issued two reports that document environmental investigations and/or remedial actions at multiple former UST sites (PWC 2003, 2004). In addition, BEI submitted a final Annual Groundwater Monitoring Report for Petroleum Only Sites that presents results of groundwater monitoring conducted during 2002, 2003, and 2004 and recommends closure of UST Sites 116, 200 (Navy Exchange [NEX] Gas Station), 272, 533, and 539 (BEI 2005).

Cumulatively, recent work conducted by the Navy Public Works Center (PWC) and BEI resulted in the closure of 6 sites, 18 sites pending closure concurrence from the RWQCB, and 17 sites where further action is being considered.

2.1.1 PWC Investigation and Remediation in 2003

PWC conducted work at 14 UST sites that had previously been identified for further action. Based on the results of the investigations and removal actions, case closure was proposed for all 14 sites (PWC 2003). To date, none of the 14 sites have received closure concurrence from the RWQCB. See Section 2.3.1 for further discussion.

2.1.2 PWC Site Assessment in 2004

In April and May of 2004, PWC conducted an assessment of UST Sites 110, 114, 145, 315, 328, 333, 364, 400, 400(A)(1), 400(B)(2), 410, 446, 459, 490, 528, 537, 547, 550, 551, and 551(I)(N) (PWC 2004). In the report, PWC included a “Site Assessment Report and Closure Summary” (Appendix B) for each UST Site that summarized the results of the investigations along with conclusions and recommendations.

The RWQCB responded to PWC’s assessment report (PWC 2004) with a letter dated 29 June 2005 (RWQCB 2005) in which 6 sites were closed and 13 sites were identified as requiring further action.

2.1.3 BEI Final Annual Groundwater Monitoring Report in 2005

BEI submitted a final Annual Groundwater Monitoring Report for Petroleum-Only Sites dated October 2005 (BEI 2005). This report presents results from groundwater monitoring conducted during 2002, 2003, and 2004 at former UST Sites 116, 200 (NEX Gas Station), 533, and 539. UST Sites 200(N), 200(S)(1), 200(S)(2), 200(W), 272(A), 272(B), and 272(C), and 533 were recommended for closure based on the

concentrations of COCs in groundwater at these sites being below cleanup goals. UST Sites 116 and 539 were recommended for closure based on reduced concentrations of COCs (slightly exceeding cleanup goals) reported only in source area wells, with little or no downgradient migration, and decreasing concentration trends.

2.2 CLOSED UST SITES

A total of 71 UST sites have been closed to date (Table 2-1, Figures 2-1 through 2-13). For the purposes of this TMP, closed UST sites are defined as those sites for which signed closure documentation has been received from the RWQCB.

Tank Closure Summaries for the closed UST sites are presented in Appendix A. These summaries contain site-specific information used by the RWQCB for closure decisions. Additional information regarding UST site closures and previous environmental work at NAF El Centro may be found in previous Tank Management Plans (HLA 1995, BNI 2000d).

2.3 SITES PENDING AGENCY CONCURRENCE WITH CLOSURE REQUESTS

There are a total of 42 outstanding UST site closure requests for which RWQCB concurrence has not been received (Table 2-2, Figures 2-1 through 2-13). The previous TMP (BNI 2000d) listed these sites as closed but they have been identified as “pending” in this updated TMP to facilitate follow-up with the RWQCB.

Tank Closure Summaries for an additional 10 UST Sites (116, 200[N], 200[S][1], 200[S][2], 200[W], 272[A], 272[B], 272[C], 533, and 539) were included in a final groundwater monitoring report (BEI 2005) which was submitted to the RWQCB for their concurrence.

2.3.1 PWC Investigation and Remediation in 2003

PWC conducted work at 14 former UST Sites: 125, 144, 221, 227, 312.2, 327, 375(S), 375(W), 386, 425, 428, 441, 443, and 525. These sites were previously recommended for further action. Based on the results of the investigations and removal actions, closure was proposed for all 14 sites (PWC 2003). To date, none of the above-referenced sites have received closure concurrence from the RWQCB. The sites are briefly discussed below.

Sites 227, 327, 428, and 441 – Additional soil assessment was conducted at these sites using the Site Characterization and Analysis Penetrometer System (SCAPS). Detectable concentrations of total petroleum hydrocarbons (TPH) were reported in soil at these sites during previous site assessment activities (BNI 2000d). Previous groundwater results for each site were below the maximum allowable concentrations. In June 2002, 21 laser-induced fluorescence and soil sampling borings were advanced using the SCAPS rig to assess the lateral and vertical extent of hydrocarbon-impacted soil. Groundwater was sampled at UST Sites 227, 428, and 441 due to the presence of hydrocarbon-impacted soil close to or below the groundwater table.

Section 2 Former Underground Storage Tank Sites

- **Site 227** – Concentrations of TPH as diesel in soil exceeded the cleanup level. TPH as gasoline in soil was not reported above method detection limits. Hydrocarbon-impacted soil was excavated and the remaining soil met cleanup standards. Benzene concentrations reported in groundwater exceeded the MCL.
- **Site 327** – TPH as diesel in soil was not reported above method detection limits. Groundwater samples were not collected. An exploratory excavation down to 5 feet below ground surface failed to locate the UST.
- **Site 428** – Both TPH as diesel and TPH as gasoline in soil were not reported above method detection limits. A UST was discovered and removed. Hydrocarbon-impacted soil was excavated. The remaining soil met cleanup standards. Reported MTBE concentrations in groundwater exceeded the MCL.
- **Site 441** – Reported concentrations of TPH as diesel in soil exceeded the cleanup level. A UST was discovered and removed. Hydrocarbon-impacted soil was excavated. The remaining soil met cleanup standards. Reported benzene, toluene, ethylbenzene, and xylenes (BTEX) and MTBE concentrations in groundwater were below MCLs.

Sites 125, 221, 375(W), 386, 425, and 525 – Groundwater assessments were conducted at these sites using SCAPS microwells in June 2002. Contaminant concentrations reported in soil samples during UST removals met the cleanup standards for soil. Analytical results for soil and groundwater samples collected during the January 2000 UST site investigation did not reveal detectable concentrations of MTBE. The presence of petroleum hydrocarbons in soil prompted the RWQCB to request that groundwater samples be analyzed for petroleum hydrocarbons. No groundwater COPC concentrations at each site were reported to exceed the respective MCLs. An exploratory excavation to find a UST at Site 525 was not feasible because Building 525 is located on top of the suspected tank site.

Sites 144, 312.2, 375(S), and 443 – Downgradient monitoring wells were installed to further assess groundwater at these sites in August 2002. Previous investigations reported concentrations of petroleum hydrocarbons in soil and groundwater close to cleanup standards and MCLs, respectively. PWC supervised the installation of one groundwater monitoring well downgradient from each of the sites to assess dissolved-phase petroleum hydrocarbons. Petroleum hydrocarbons were not reported above method detection limits in any of the downgradient wells at any of the sites. Other detected groundwater COPC concentrations were reported below MCLs. Based on the assessment results, PWC concluded that natural attenuation processes are effectively mitigating the plume at each site. A UST was discovered and removed from Site 443 in January 2003. No hydrocarbon-impacted soil was found within the tank cavity.

2.3.2 BEI Final Annual Groundwater Monitoring Report for Petroleum-Only Sites in 2005

Site 116 – Impacts to soil were identified during removal of UST 116 in 1989. Subsequent investigations concluded that COPCs in groundwater had migrated downgradient (Boogay 1990, JEG 1993, BNI 2000a). The site was partially remediated

Section 2 Former Underground Storage Tank Sites

by soil and groundwater removal (OHM 1995). The extent of soil excavation was limited by the presence of buildings and utilities. Some of the confirmation soil sample results exceeded cleanup levels. Three monitoring wells have been installed at the site. Monitoring results obtained through January 2004 indicate that only two COCs (benzene and 1,2-dichloroethane) were reported in groundwater at concentrations slightly exceeding cleanup goals; COCs are not migrating downgradient; and COC concentrations appear to be decreasing due to natural attenuation (BEI 2005). Groundwater monitoring at UST Site 116 was recommended to be discontinued and the monitoring wells at the site destroyed in accordance with applicable regulations and procedures.

Site 200 (NEX Gas Station) – 200(N), 200(S)(1), 200(S)(2), and 200(W) – These UST sites are associated with the current NEX Gas Station. Impacts to soil and groundwater were identified during site investigations (JEG 1991, 1992; SOTA 1998b; BNI 2000a). The USTs were removed in 1993 and replaced with two ASTs. Impacted soil was excavated and disposed off-site. Results from confirmation soil samples collected during the removal of UST 200(N) were below cleanup levels (Kroeker 1994); soil samples were not collected during removal of the other three USTs. Eight monitoring wells have been installed at the site. Monitoring results obtained through January 2004 indicate that COCs are not present in groundwater at concentrations exceeding site cleanup goals; COCs are not migrating downgradient; and reported concentrations of COCs are expected to decrease further as a result of natural attenuation processes (BEI 2005). Groundwater monitoring at UST Site 200 was recommended to be discontinued and the monitoring wells at the site destroyed in accordance with applicable regulations and procedures.

Site 272 – 272(A), 272(B), and 272(C) – The former USTs at these sites were associated with the former gas station, Building 272, located west of the current NEX Gas Station, Building 200. According to historical drawings, UST 272(B) was removed in 1964 and replaced with UST 272(A) (BNI 2000d). No soil samples were collected then nor during removal of UST 272(C) (ECC 1993); UST 272(C) was misidentified as UST 200(W) in this report. Confirmation soil samples from removal of UST 272(A) did not exceed cleanup levels (Kroeker 1994); UST 272(A) was identified as UST 200 in this report. Impacts to soil and groundwater were identified at UST Sites 272(B) and 272(C) during an investigation in February 1999 (BNI 2000a). Approximately 1,065 cubic yards of soil was excavated and disposed off-site (Geofon 2000). Monitoring well NEX-MW7 is installed approximately 200 feet downgradient from the former USTs at the site. Results from monitoring conducted through January 2004 indicate that COCs are not reported in groundwater at concentrations exceeding cleanup goals (BEI 2005). Groundwater monitoring at UST Site 272 was recommended to be discontinued and the monitoring well at the site destroyed in accordance with applicable regulations and procedures.

Site 533 – Impacts to soil were identified during removal of UST 533 (ATS 1990). Subsequent investigations identified impacts to groundwater (JEG 1993, BNI 2000a). Two monitoring wells have been installed at the site. Free product (diesel) has been measured in well MW533-1 and was removed between February 2001 and November 2003, when it was not longer measurable. Soil and groundwater samples collected

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downgradient of the site indicate that COC migration has been limited. Approximately 80 cubic yards of soil was excavated, and approximately 20 cubic yards of soil was disposed off-site (Geofon 2000); the extent of soil excavation was limited by the presence of buildings and utilities. Monitoring conducted through January 2004 indicates that COCs are not present in groundwater at or downgradient from the site at concentrations exceeding cleanup goals (BEI 2005). Groundwater monitoring at UST Site 533 was recommended to be discontinued and the monitoring well at the site destroyed in accordance with applicable regulations and procedures.

Site 539 – Impacts to soil were identified during removal of UST 539 (Amtech 1990). Subsequent investigations identified impacts to groundwater (JEG 1993, BNI 2000a). Three monitoring wells have been installed at the site. Results from soil and groundwater samples indicate that downgradient migration of COCs has been limited. Maximum concentrations of COCs have been reported in source area well 539-MW1, which is located within approximately 5 feet of the location of former UST 539. Monitoring conducted through January 2004 indicates that the only COC reported in groundwater at concentrations exceeding cleanup goals is benzene; there has been little downgradient migration of COCs; and decreasing concentration trends are expected to continue as a result of natural attenuation (BEI 2005). Groundwater monitoring at UST Site 539 was recommended to be discontinued and the monitoring well at the site destroyed in accordance with applicable regulations and procedures.

2.3.3 Miscellaneous Sites With Pending Closure Requests

Sites 409(N) and 409(S) – Impacted soil was reported during removal of former USTs 409(N) and 409(S) (ECC 1993), and confirmed during a UST site investigation in February 1999 (BNI 2000a). Groundwater sample results did not exceed maximum allowable levels. The sites were remediated by soil removal (Geofon 2000); confirmation sample results were less than cleanup levels for soil and the maximum allowable concentrations for groundwater; site closure was recommended. RWQCB has concurred with closure recommendations, although a letter has not been issued (BNI 2000d).

Sites 126, 421, 423, 429, 431, 441, 435, 510, and 542(C) – USTs were located and removed; PWC recommended closure but RWQCB concurrence has not been received (NAVFAC 2005).

Sites 444, 531, and 543 – These USTs have not been located (except possibly as noted below); investigation activities included visual inspection, pot holing (Brown and Caldwell 1993), geophysics, and air knife probes (SOTA 1998a). Soil and groundwater samples were collected at locations indicated on historical maps and drawings during the UST site investigation conducted in January 2000. Results were less than cleanup levels for soil and maximum allowable concentrations for groundwater (BNI 2000b). RWQCB has concurred with closure recommendations, although a letter has not been received. A geophysical anomaly has been identified at UST Site 531 based on data collected by the Navy in February 2006. The Navy intends to notify the appropriate regulatory agencies if the presence of a UST is verified in the field through exploratory excavation

(NAVFAC 2006); therefore, this UST also is counted among the USTs to be considered for further action (refer to Section 2.5).

Sites 541(N), and 541(S) were investigated for the presence of a tank using geophysics, but results were inconclusive (SOTA 1998a). Excavations indicated no tank present (OHM 1999). Excavation soil sample results were less than cleanup levels; groundwater samples were collected during the UST site investigation conducted in April 2000; results did not exceed maximum allowable concentrations; site closure was recommended (BNI 2000c), but concurrence has not been received.

Site 542 was not investigated before a UST site investigation conducted in January 2000. Soil and groundwater samples were collected at the suspected location; results were less than cleanup levels for soil and maximum allowable concentrations for groundwater; site closure was recommended (BNI 2000b). RWQCB has concurred with closure recommendations, although a letter has not been issued.

2.4 SITES TO BE CONSIDERED FOR FURTHER ACTION

To date, site closure requirements have not been met for a total of 51 known and suspected UST sites (Table 2-3, Figures 2-1 through 2-13). Further action such as sampling, removal, monitoring, or remediation may be required to close these sites. The purpose of this section is to identify the outstanding issues associated with each site so that appropriate action may be taken to either obtain closure or move the site further through the regulatory process to eventually obtain closure.

The current status of each site is either summarized below or discussed in the Site Assessment Report and Closure Summaries located in Appendix A. Forty-five of the 51 UST sites to be considered for further action are discussed in this section; the remaining six sites (214A, 322, 323, 326, 531, 534A) have either not been located or may have been located using geophysics, and are discussed in Section 2.5, Status of UST Locating Efforts.

2.4.1 Sites Undergoing Remedial Action

Former UST Sites *447 (O), 448 (J), 449 (P), 451 (K), 452 (Q), 453 (R), 454 (L), 455 (M), 456 (S), 457 (N), 458 (T), 461, 462, 463, 464, 465, 466, 467, 468, 469, 471, 472, 473, and 484* were part of the Abandoned Fuel Farm (IR Site 7). The former fuel farm operated from approximately 1942 to 1958, when the air field was expanded and fueling activities were transferred to the current fuel farm in the southeast corner of the base (BNI 1999). Eleven of the tanks in the southeast portion of the site were removed in 1983 and 1984 (Kroeker 1994). The remaining tanks were abandoned in place by crushing the tops and filling with sand. Impacts to soil were reported during subsequent removal of the 11 southernmost tanks (Kroeker 1994). Test pit samples indicated that the extent of impacted soil was widespread and approximately 1,500 cubic yards was removed (OHM 1995). Impacts to soil and groundwater were further evaluated during various site investigations.

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Vacuum-enhanced pumping (VEP) technology was chosen to remediate petroleum hydrocarbons in soil gas and groundwater. VEP pilot testing was conducted in 1999 and 2000 and full-scale VEP was initiated in 2000. The VEP system continues to operate at Site 7 and as of May 2005 has extracted approximately 219,000 pounds of petroleum hydrocarbons from the subsurface (Cape 2005).

2.4.2 Sites With Impacted Soil

Sites 114 and 315 – These sites contain petroleum hydrocarbon-impacted soil that has been partially excavated. PWC recommended closure of both sites based on the relatively small volumes of soil remaining in place, future land use remaining the same, and the soil not posing an unacceptable risk to human health and the environment (PWC 2004). The RWQCB did not concur with the closure recommendations and requested the following additional work (RWQCB 2005).

- **Site 114** – The RWQCB requested that soil samples be collected around the presumed limit of TPH-impacted soil to confirm the extent of contamination.
- **Site 315** – The RWQCB requested verification of SCAPS results that should include at least one soil sample to be collected on the west and north sides of the former excavation limits. The RWQCB requested that the samples be collected as close to the former limits of the excavation as practical.

Site 117 – Petroleum hydrocarbon-impacted soil was identified during removal of UST 117 (Kroeker 1994). Impact to groundwater has not been assessed. The site is located under a concrete parking apron used by aircraft. The Department of the Navy (DON) will consider further action, including groundwater sampling, and evaluate remedial alternatives, such as natural attenuation, to fulfill site closure requirements.

Sites 198 and 485 – Petroleum hydrocarbon-impacted soil was reported during removal of USTs 198 and 485 (ECC 1993, Kroeker 1994). Soil contamination was confirmed during a UST site investigation conducted in February 1999 (BNI 2000a). Groundwater sample results were less than maximum allowable concentrations. The sites were partially remediated by soil removal (Geofon 2000). Some of the confirmation soil sample results exceeded cleanup levels at both sites. The DON will evaluate remedial alternatives, including natural attenuation, to fulfill site closure requirements.

Site 400 – This site contains petroleum hydrocarbon-impacted soil. The extent of soil contamination remains undefined to the north, south, and west. One HydroPunch groundwater sample was collected downgradient, and no COPCs were reported above maximum allowable concentrations. PWC recommended further soil assessment (PWC 2004) and the RWQCB concurred (RWQCB 2005).

Site 528 – The RWQCB concurred with PWC's recommendation that further assessment is required to delineate the extent of impacted soil to the north and west of the former UST. The RWQCB also requested that further assessment be conducted to the south and east of the former UST location (PWC 2004, RWQCB 2005).

Site 535 – Petroleum hydrocarbon-impacted soil was reported during the UST removal (OHM 1999). The site was partially remediated by soil removal, but the extent of the soil excavation was limited by the presence of buildings and utilities. Soil samples collected from the excavation walls exceeded cleanup levels. The DON will evaluate remedial alternatives, including natural attenuation, to fulfill site closure requirements.

Site 547 – This site contains petroleum hydrocarbon-impacted soil. COPC concentrations in groundwater are below maximum allowable levels. The extent of soil contamination has been defined. An estimated 80 cubic yards of TPH-as-diesel-impacted soil exists with concentrations greater than or equal to 1,000 milligrams per kilogram. PWC recommended no further action for groundwater and remediation by excavation for soil (PWC 2004). The RWQCB concurred with the soil excavation recommendation (RWQCB 2005).

Site 550 – A suspected UST at this site was never located but petroleum hydrocarbons were reported in soil and groundwater samples. The extent of petroleum hydrocarbon-impacted soil at this site has been delineated. Groundwater concentrations are below maximum allowable levels. PWC recommended site closure (PWC 2004). The RWQCB requested further clarification on the potential UST location and requested that soil samples be collected at that location (RWQCB 2005).

Site 551 – A suspected UST at this site was never located but petroleum hydrocarbons were reported in soil and groundwater samples. Subsequent soil samples collected by PWC contained TPH as diesel concentrations below cleanup levels. A groundwater sample did not contain detectable concentrations of BTEX and MTBE. PWC recommended site closure (PWC 2004). The RWQCB did not concur with the closure recommendation and requested that a confirmation soil sample be collected near the suspected UST location within the presumed contamination depth interval (RWQCB 2005).

Site 551(I)(N) – The extent of petroleum hydrocarbon-impacted soil has been delineated. A groundwater sample did not contain detectable concentrations of BTEX and MTBE. PWC recommended site closure (PWC 2004). Based on previous soil sample results collected in 2000, the RWQCB requested that at least one confirmation soil sample be collected at the site (RWQCB 2005).

2.4.3 Sites With Impacted Groundwater

Sites 400(A)(1) and 400(B)(2) – The former USTs were associated with the Public Works service station, Building 400. Analytical results associated with the UST removals (ECC 1993) were less than cleanup levels for soil and less than maximum allowable concentrations for groundwater, but samples were not analyzed for MTBE. MTBE was reported in groundwater during a site investigation conducted in January 2000 (BNI 2000b). Further assessment to delineate the lateral extent of contamination was conducted in April 2000 (BNI 2000c).

In April and May 2004, PWC supervised the installation of four temporary wells using the SCAPS rig. Results of groundwater sampling indicated MTBE concentrations

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exceeding maximum allowable concentrations in all four temporary wells. BTEX was not reported above method detection limits. PWC concluded that the MTBE plume has migrated downgradient. Since it is assumed that UST Sites 400(A)(1) and 400(B)(2) lie within the radius of influence of the IR Site 7 VEP system, PWC recommended that further groundwater assessment be conducted once the VEP system has been shut off and groundwater conditions return to equilibrium (PWC 2004). The RWQCB concurred with the recommendations (RWQCB 2005).

2.4.4 Sites With Impacted Soil and Groundwater

Sites 328, 331, 537, and 554 – Impacts to soil were identified during removal of the USTs (Pacific Treatment Environmental Services 1992, ECC 1993, Geofon 1996), and impacts to groundwater were identified during a UST investigation in February 1999 (BNI 2000a). The current status of each site is summarized below.

- **Site 328** – This site contains an estimated 23 cubic yards of petroleum hydrocarbon-impacted soil. Low concentrations of total xylenes and TPH as diesel were reported in HydroPunch groundwater samples. PWC recommended excavation of the impacted soil (while the site is still open and planted with limited landscaping) and downgradient assessment of groundwater (PWC 2004). The RWQCB concurred with PWC's recommendations (RWQCB 2005).
- **Site 331** – A work plan for additional assessment was approved by the RWQCB (NAVFAC 2005).
- **Site 537** – This site contains petroleum hydrocarbon-impacted soil. Due to the presence of Building 537, the extent of soil contamination remains undefined to the west. Benzene concentrations in groundwater are slightly above MCLs and are expected to reduce with time through natural attenuation. PWC recommended that benzene concentrations in groundwater be allowed to attenuate naturally and suggested that further soil assessment to the west is not feasible due to the presence of Building 537. Should Building 537 be demolished in the future, assessment of soil and groundwater contamination under that building will be conducted (PWC 2004). The RWQCB concurred with PWC's recommendations and suggested that a land-use restriction be placed on the site to be included in the Base Master Plan (RWQCB 2005).
- **Site 554** – Further assessment will be conducted (NAVFAC 2005).

Site 333 – This site contains petroleum hydrocarbon-impacted soil and groundwater impacted with benzene. The extent of soil contamination remains undefined to the southwest and downgradient groundwater remains unassessed. PWC recommended further soil and groundwater assessment at this site (PWC 2004). The RWQCB concurred with PWC's recommendations (RWQCB 2005).

Sites 285, 438, and 529 – Petroleum hydrocarbon-impacted soil was reported at former UST Sites 285, 438, and 529 during tank removal (ECC 1993, Kroeker 1994) (UST 438 was identified as UST 486 in the Kroeker report). The sites were partially remediated by soil and groundwater removal (OHM 1995). The extent of soil excavation was limited by the presence of buildings and utilities. Some of the confirmation soil sample results

exceeded cleanup levels. The OHM report recommended *in situ* remediation to obtain site closure. Comments from RWQCB indicated that institutional controls may be required following cleanup if contamination remains beneath buildings. The Department of the Navy (DON) will evaluate remedial alternatives, including natural attenuation, to fulfill site closure requirements.

2.5 STATUS OF UST LOCATING EFFORTS

A total of 17 UST sites remain open and have not been located. These sites are proposed for either closure (Sites 144, 327, 425, 444, 525 541[N], 541[S], and 543; see Section 2.3) or for further action (Sites 214A, 322, 323, 326, 531, 534A, 547, 550, and 551; see Section 2.4 for Sites 547, 550, and 551) (Table 2-4). In addition, since the previous TMP was issued, ten USTs have been located and removed from sites now pending closure concurrence from the RWQCB (Sites 126, 421, 423, 428, 429, 431, 435, 441, 443, and 510; see Section 2.3). A total of three sites where USTs have not been located have received closure concurrence from the RWQCB (Sites 442, 526, and 546; see Section 2.2). Location efforts have included visual inspection, pot holing, geophysics, and air knife probes (BNI 2000a, Brown and Caldwell 1993, SOTA 1998a).

The Navy conducted additional geophysical investigations at UST Sites 214A, 531, and 534 in February 2006. The geophysical data suggest the presence of one UST at each of these sites (NAVFAC 2006). Field verification (such as exploratory excavations) will be conducted to identify the geophysical anomalies. Note that a closure request for UST 531 has also been submitted to the RWQCB (Section 2.3.3); however, this status may change pending the results of exploratory excavations.

A UST was removed from Site 534 in 1990 and subsequently received regulatory closure prior to the discovery of another potential UST at the site in February 2006 (NAVFAC 2006). If another UST is confirmed at this site, the Navy intends to designate it as UST 534A and notify the appropriate regulatory agencies of the discovery. The UST will be removed and assessed for potential impacts to the environment.

A Location Map (Anteon 2005) showing geophysical data collected at UST Sites 531 and 534 is included as Appendix C for reference.

2.6 SITES DROPPED FROM TANK PROGRAM

Thirteen sites were identified in the UST Management Plan (HLA 1995), by anecdotal reports, or on historical maps and drawings, but none are believed to be tanks (Table 2-5, Figures 2-1 through 2-13).

- Suspected UST Site **229** was listed in a letter dated 19 May 1995, "Survey Underground Storage Tanks (UST) Job Order # 1226076" (HLA 1995). The UST was planned for removal in 1996 under Contract No. N68711-92-D-4675. Excavation at the suspected location revealed no tank present. Geophysics was also performed in the area, and no tank was found (SOTA 1998a).
- Suspected UST Site **417** was listed in a letter dated 19 May 1995, "Survey Underground Storage Tanks (UST) Job Order # 1226076" (HLA 1995). The

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location of Building 417 has not been identified. Neither Building 417 nor UST 417 are shown on historical drawings.

- Suspected UST Sites **116A**, **425A**, and **427A** were apparently discovered during ground penetrating radar (GPR) surveys performed by the PWC in August 1995 (HLA 1995). USTs were removed from Buildings 116, 425, and 427 prior to the GPR survey. The GPR survey may have detected backfilled UST excavations. Historical drawings do not indicate more than one tank at each of these locations.
- Suspected UST Sites **359A** and **359B** were reported by various personnel at the base during removal of UST 359. They are not shown on historical maps or drawings and were not identified in a previous UST Management Plan (HLA 1995). A geophysical investigation and exploratory trenching were conducted to evaluate the presence of these tanks (Geofon 2000). No evidence of a UST was discovered. Based on the lack of documentation to support the presence of these suspected tanks, it is believed that they never existed.
- Suspected UST Site **516** was listed in a letter dated 19 May 1995, "Survey Underground Storage Tanks (UST) Job Order # 1226076" (HLA 1995). No UST is shown on historical drawings at Building 516.
- Suspected UST Sites **Apron A**, **Apron B**, and **Apron C** are shown on one of the historical maps as part of a former Apron Fueling System. The map identifies tank capacities and shows associated piping but does not show tank symbols at these locations. The sites are not identified in a previous UST Management Plan (HLA 1995). They were investigated using geophysical survey and exploratory trenches (Geofon 2000). No evidence of USTs was discovered. Base personnel reported that the Apron Fueling System tanks were ASTs, not USTs.
- Suspected UST Site **H** was planned for removal during the Phase II removal performed in 1993. However, the Phase II removal report stated that the tank was not found (Kroeker 1994). Excavation at the suspected UST location revealed no tank present. Drawings and specifications for the Phase II removal indicate the presence of a concrete pad at the suspected location. Another historical drawing indicates the presence of an abandoned transformer pad in that area. It is believed that the transformer pad was mistaken for the UST.
- Suspected UST **SFPPL** is described as a surge tank for back flushing fuel filters associated with the Santa Fe Pacific Pipeline, which is used to deliver fuel to NAF El Centro (HLA 1995). In a conversation with Robert Granado of Kender-Morgan in Santa Ana, California, the pipeline operator, Mr. Granado indicated that the suspected UST is actually a length of pipe and is not a tank subject to UST regulations.

These previously suspected UST sites are no longer considered tank sites, and the Navy is not considering further action at these sites.

2.7 SITES TO BE ADDRESSED UNDER FORMERLY USED DEFENSE SITES PROGRAM

Former UST Sites *OH-01* through *OH-26* are associated with the old housing area located to the southeast of the main gate at NAF El Centro (Table 2-6). NAF El Centro sold this property to a local farmer who is using the area for equipment storage. A historical map shows 14 USTs in that area, and 3 were found using geophysics (SOTA 1998a). These sites will be addressed under the Formerly Used Defense Sites Program.

Section 3

ABOVEGROUND STORAGE TANKS

This section provides information on the ASTs at NAF El Centro and identifies the state and federal regulations that apply to these tanks. The SPCC Plan for NAF El Centro provides additional details regarding these ASTs (SWDIV 1999).

3.1 AST SITES

There are 42 ASTs at NAF El Centro that store petroleum-related product (Figure 3-1). Table 3-1 lists these ASTs with information regarding their size, contents, age, secondary containment, overfill protection, and liquid level indicator.

The ASTs generally fall into four categories based on their contents and intended use:

- storage of jet propellant grade 5 jet fuel for aircraft and “off-spec” fuel (7 ASTs with capacities ranging from 5,000 gallons to 792,000 gallons);
- storage of gasoline and diesel fuel for vehicles (4 ASTs with a capacity of 10,000 gallons each);
- storage of diesel fuel for emergency generators (27 ASTs with capacities of 600 gallons or less); and
- miscellaneous tanks for diesel, motor oil, transmission oil, waste oil, and smoke oil (4 ASTs).

3.2 ABOVEGROUND PETROLEUM STORAGE ACT

The Aboveground Petroleum Storage Act (APSA) as amended in 1991, 1993, 1994, and 1995 (Appendix D) is promulgated in state of California law, effective 01 January 1990, at Cal. Health & Safety Code Sections 25270–25270.13. In general, the law requires owners or operators of ASTs to file a storage statement, pay fees, and prepare and implement an SPCC plan. The State Water Resources Control Board (SWRCB) and RWQCB administer the Aboveground Petroleum Storage Tank Program to protect California’s water resources. Appendix E includes information provided by the SWRCB regarding the AST Program.

The APSA applies to facilities storing petroleum in a single tank with a capacity greater than 660 gallons or facilities storing petroleum in ASTs or containers with a cumulative storage capacity of greater than 1,320 gallons. Petroleum is defined as crude oil or any fraction that is liquid at 60 degrees Fahrenheit at normal atmospheric pressure. This includes gasoline, diesel, jet fuels, fuel oils, lubricants, and used oils.

3.2.1 Spill Prevention Control and Countermeasure Plan

In Cal. Health & Safety Code Section 25270.5, the APSA requires that tank facilities prepare an SPCC plan in accordance with the U.S. EPA’s regulations on oil pollution prevention. The requirements for an SPCC plan are contained in 40 CFR Part 112 (Appendix F). Section 3.3 summarizes information from 40 CFR Part 112.

The NAF El Centro SPCC Plan (SWDIV 1999) provides details and makes recommendations for the ASTs. In particular, Section 6.0 of the facility SPCC Plan presents site-specific plans, with recommendations for each site.

3.2.2 Inspections

Cal. Health & Safety Code Section 25270.5 includes the following requirements for inspections.

- (a) Each RWQCB shall conduct periodic inspections of either each storage tank or a representative sampling of the storage tanks . . .
- (b) Each owner or operator . . . shall conduct periodic inspections of the storage tanks to assure compliance with 40 CFR Section 112.7. The owner or operator of a tank facility specified in subparagraph (B) of paragraph (2) of subdivision (a) of Section 25270.3 [10,000 gallons or more] shall take all of the following actions:
 - (1) Conduct daily visual inspections of any tank storing petroleum.
 - (2) Allow the RWQCB to conduct periodic inspections of the tank facility.
 - (3) Install a secondary means of containment for the entire contents of the largest tank at the tank facility, plus sufficient space for precipitation, if the RWQCB determines this installation is necessary for the protection of the waters of the state.

The SPCC Plan provides details on daily inspections of ASTs with a capacity of 10,000 gallons or more (SWDIV 1999). AST inspection forms are contained in the SPCC Plan.

3.2.3 Storage Statements

Cal. Health & Safety Code Section 25270.6, requires tank facilities to file storage statements every 2 years. The storage statements should include:

- name and address of the tank facility,
- contact person for the tank facility,
- total storage capacity of the tank facility, and
- for each tank that exceeds 10,000 gallons in capacity and that holds a substance containing at least 5 percent of petroleum:
 - location (on the facility),
 - size (in gallons),
 - age (in years), and
 - contents (type of petroleum product).

The APSA also requires a fee from the operators of tank facilities. The DON has stated that military services of the United States are not subject to the APSA and to fees

Section 3 Aboveground Storage Tanks

associated with the statute (Appendix G). However, NAF El Centro has submitted storage statements to the California State Water Resources Control Board (Sewester, pers. com. 1998) and will continue to do so as a matter of policy.

3.2.4 Monitoring

Cal. Health & Safety Code Section 25270.7 describes the monitoring requirements for ASTs. These requirements include the following.

- (a) This section does not apply to any tank whose exterior surface, including connecting piping, and the floor beneath the tank, can be monitored by direct viewing. [Subdivision e]
- (b) Each owner or operator of a tank facility . . . which . . . has the potential to impact the beneficial uses of groundwater, as determined by the RWQCB, and which is not required to have a groundwater monitoring program at the tank facility pursuant to any other federal, state, or local law, shall do any of the following:
 - (1) Install a tank facility groundwater monitoring system which will detect releases of petroleum into the groundwater, as approved by the RWQCB.
 - (2) Install and maintain a tank foundation design which will provide for early detection of releases of petroleum before reaching the groundwater, as approved by the RWQCB.
 - (3) Implement a tank water bottom monitoring system
 - (4) Use other methods which will detect releases of petroleum into or before reaching groundwater, as approved by the RWQCB.
- (c) Tank owners or operators shall report all positive findings from the detection systems . . . to the appropriate regional board within 72 hours after learning of the findings.

Monitoring details for the ASTs are described in the SPCC Plan (SWDIV 1999).

3.2.5 Spill Notification

Cal. Health & Safety Code Section 25270.8 states:

“Each owner or operator of a tank facility shall immediately, upon discovery, notify the Office of Emergency Services, and the local administering agency using the appropriate 24-hour emergency number or 911 number as established by the administering agency or the governing body of the administering agency, of the occurrence of a spill or other release of one barrel (42 gallons) or more of petroleum which is required to be reported pursuant to subdivision (a) of Section 13272 of the Water Code.”

Appendix H of this management plan includes a copy of the California Office of Emergency Services spill notification guidance. The SPCC Plan (SWDIV 1999) provides spill notification procedures for NAF El Centro.

3.3 CODE OF FEDERAL REGULATIONS, TITLE 40, PART 112

Appendix F includes the 40 CFR Part 112, "Oil Pollution Prevention." These regulations discuss the procedures, methods, and equipment in place to prevent discharges of petroleum from reaching navigable waters. 40 CFR Section 112.7 includes the following guidelines for the preparation and implementation of an SPCC plan.

- (a) All bulk storage tank installations should be constructed so that a secondary means of containment is provided for the entire contents of the largest single tank plus sufficient freeboard to allow for precipitation.
- (b) Aboveground tanks should be subject to periodic integrity testing, taking into account tank design . . . and using such techniques as hydrostatic testing, visual inspection or a system of non-destructive shell thickness testing.
- (c) New and old tanks installations should, as far as practical, be fail-safe engineered or updated into a fail-safe engineered installation to avoid spills.

These are guidelines and not regulations. They are intended for use by the operator of a facility in preparing and implementing an SPCC plan.

3.4 DON POLICY

The U.S. Navy Environmental and Natural Resources Program Manual, OPNAVINST 5090.1B, Chapter 16, provides information and guidance on management of storage tanks (both ASTs and USTs) (Appendix I). The DON policy is to comply with all federal, state, and local requirements. The manual recognizes that ASTs are not currently subject to federal regulations beyond 40 CFR Parts 110 and 112 (Section 3.3), and state regulations are not applicable to the DON by law, but AST activities will utilize best management practices. The manual also suggests release detection systems be installed and provides guidance on release reporting and tank closure.

3.5 RECOMMENDATIONS

The following recommendations for NAF El Centro are made based on the APSA and 40 CFR Part 112.

- Continue to file storage statements every 2 years in accordance with the APSA.
- Continue to review and update the SPCC Plan to assess conformance with the APSA and the guidelines in 40 CFR Part 112.
- Implement the recommendations identified in the SPCC Plan.
- Perform periodic inspections as recommended in Table 3-1. Daily inspections are required for ASTs with a capacity of 10,000 gallons or more. Monthly inspections are recommended for the smaller ASTs to meet the requirement for periodic inspections.
- All activities, including inspections, should be performed in accordance with the NAF El Centro SPCC Plan, which provides inspection forms.
- Report spills in accordance with the APSA and the SPCC Plan.

Section 4

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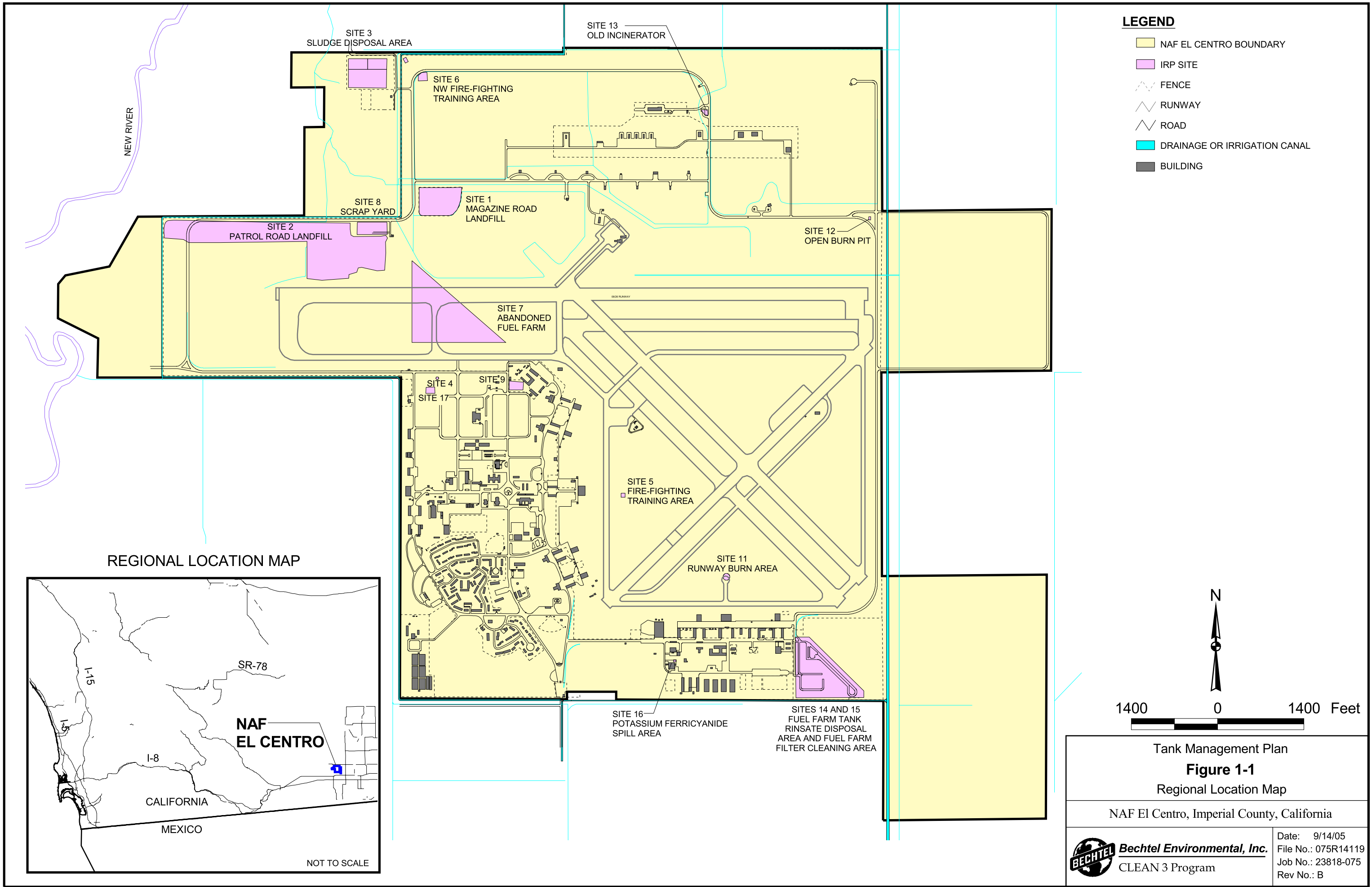
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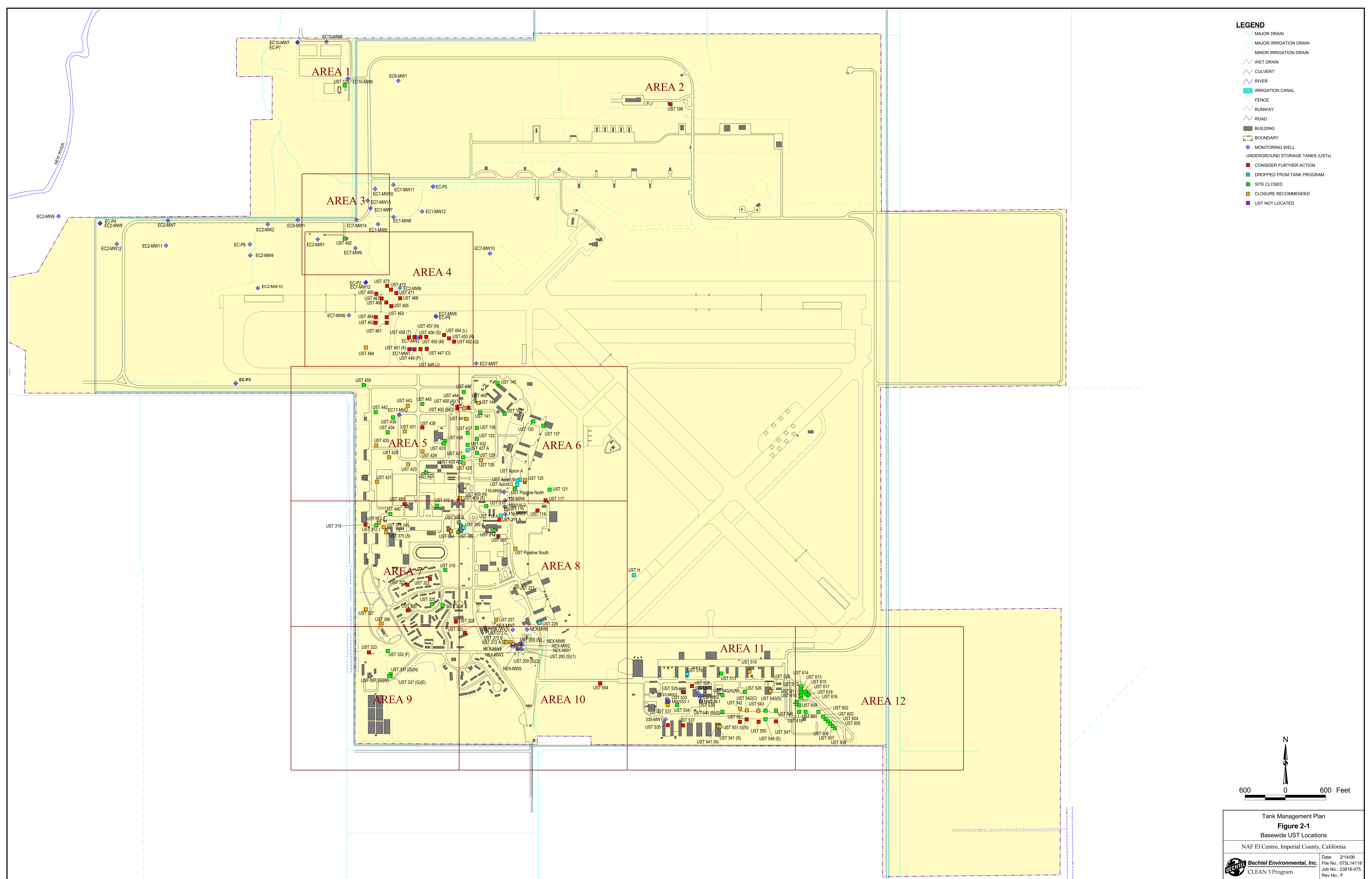
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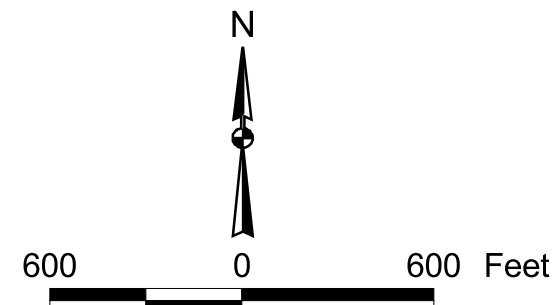
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FIGURES





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 - BOUNDARY
 - MONITORING WELL
 - UNDERGROUND STORAGE TANKS (USTs)
 - CONSIDER FURTHER ACTION
 - DROPPED FROM TANK PROGRAM
 - SITE CLOSED
 - CLOSURE RECOMMENDED
 - UST NOT LOCATED



Tank Management Plan

Figure 2-1

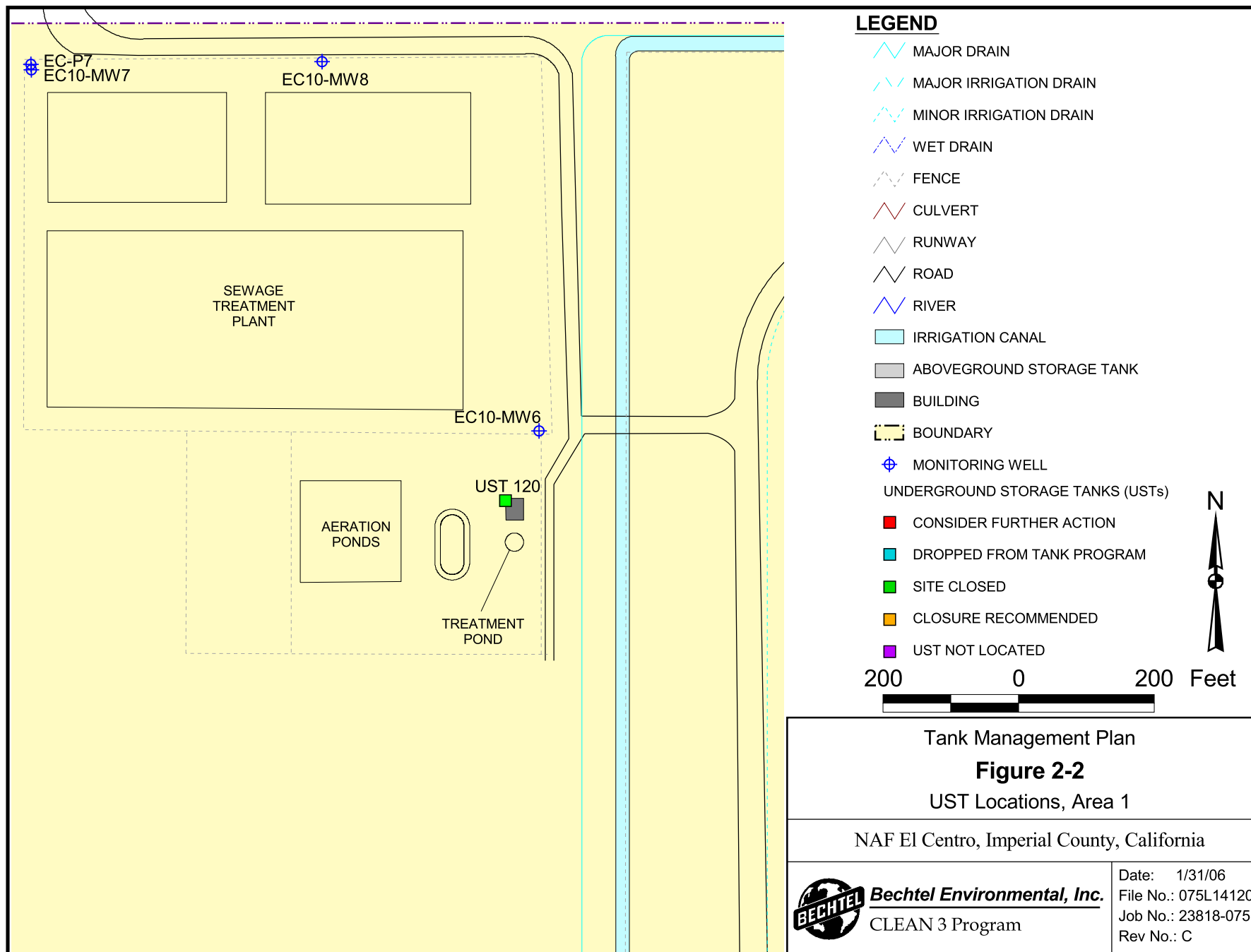
Basewide UST Locations

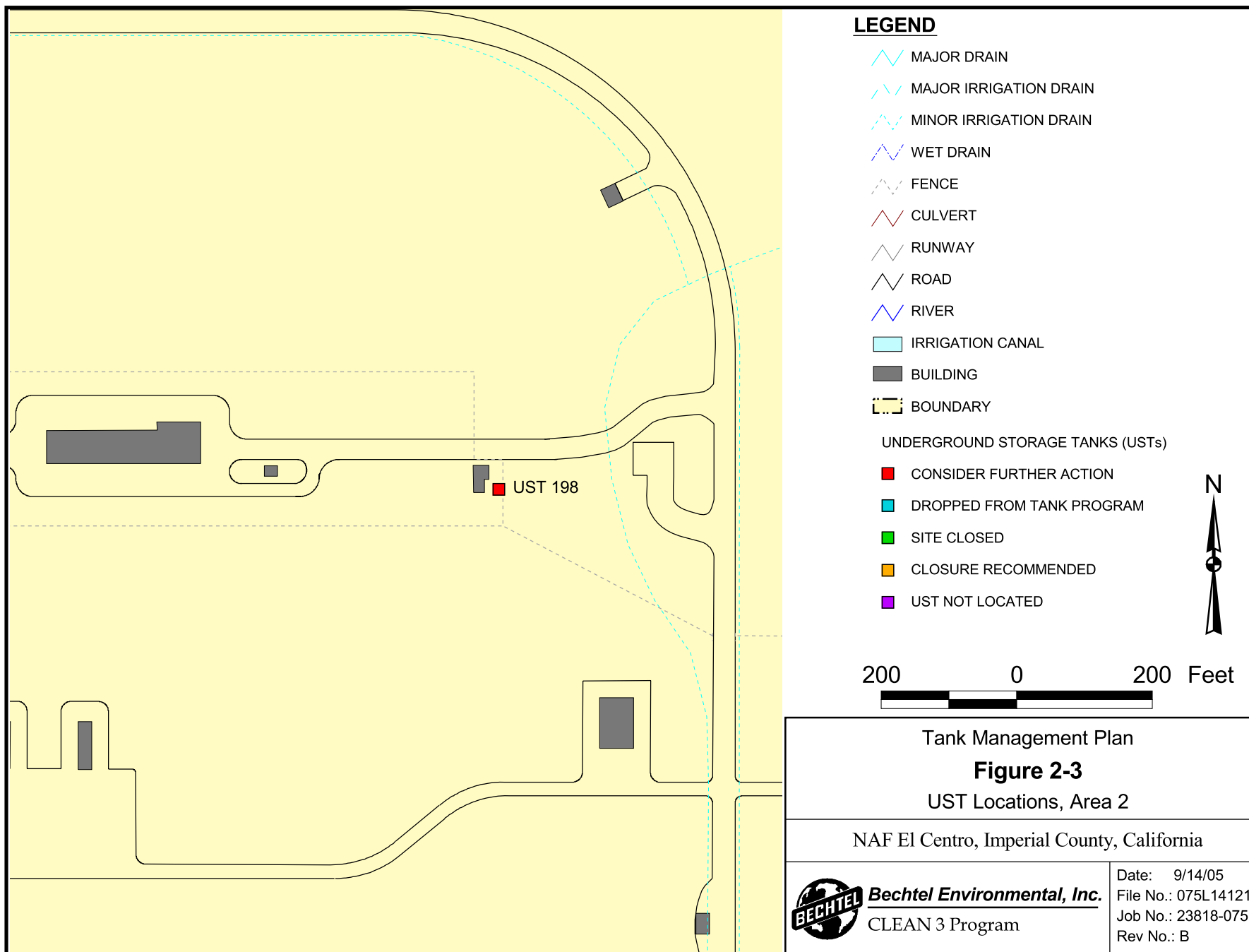
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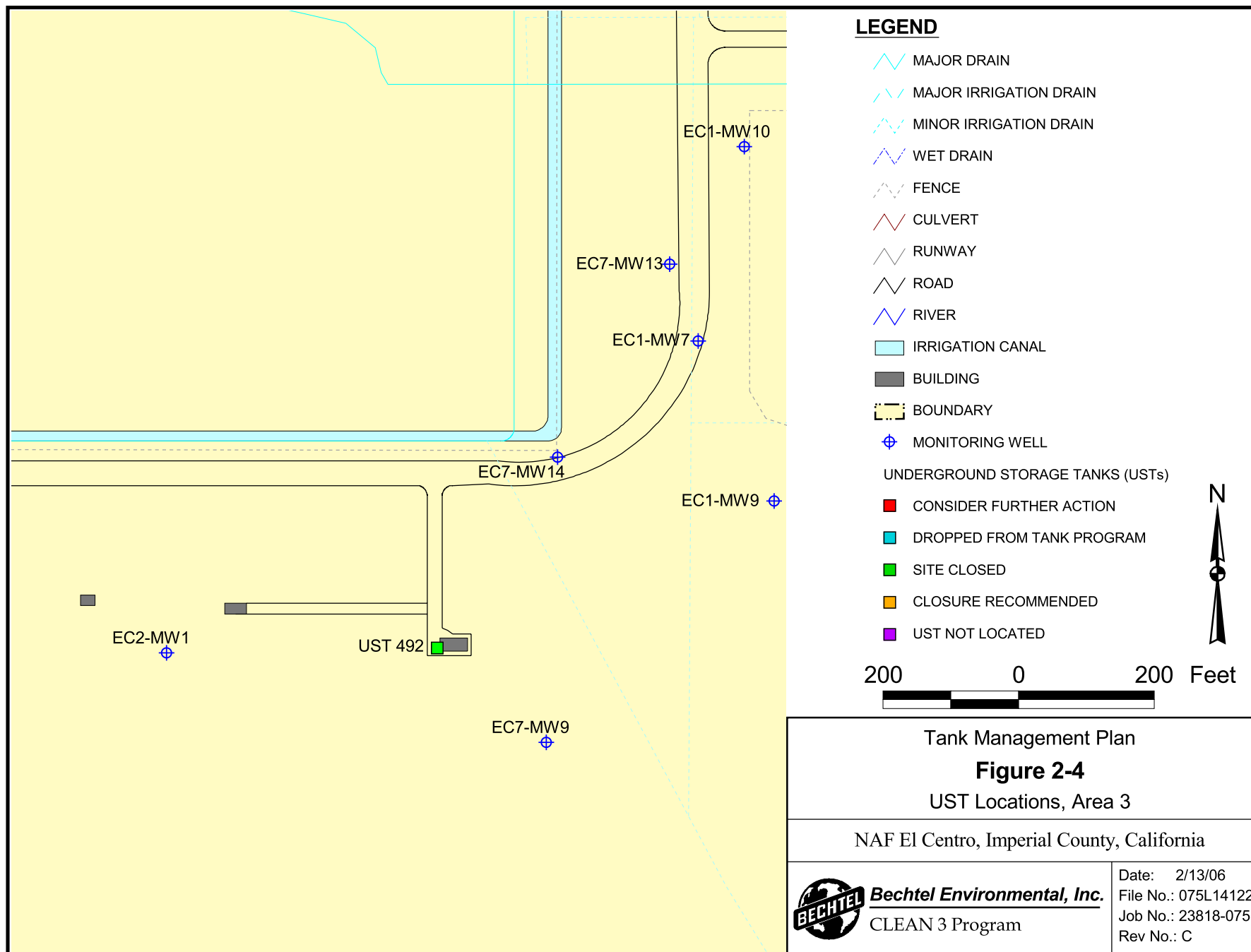


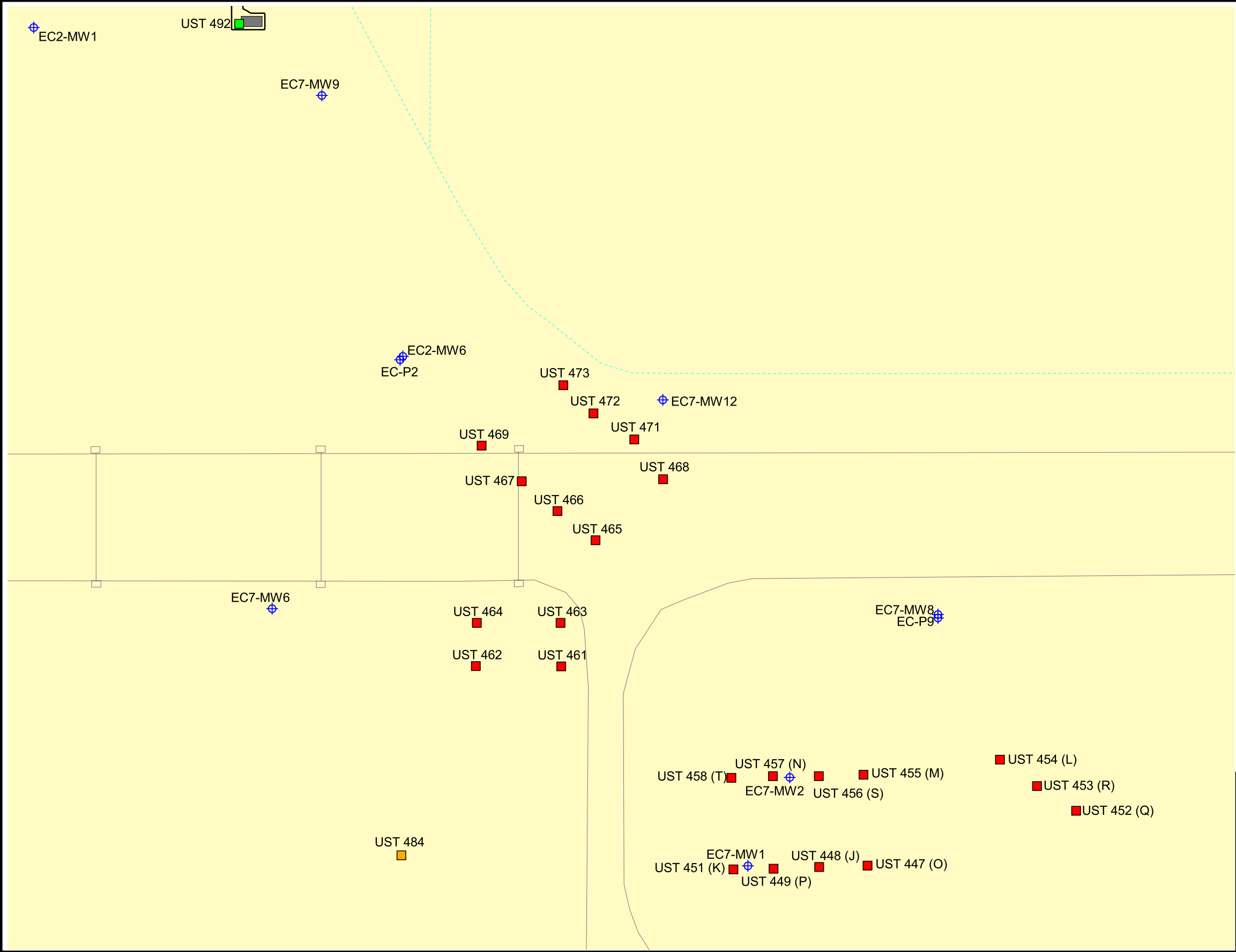
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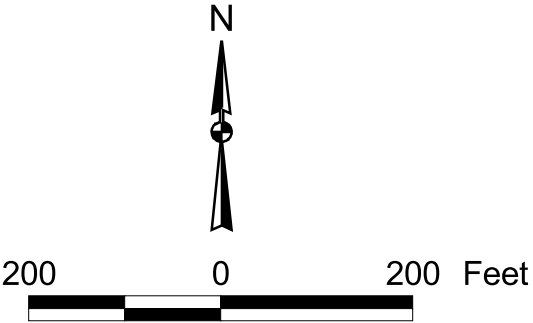





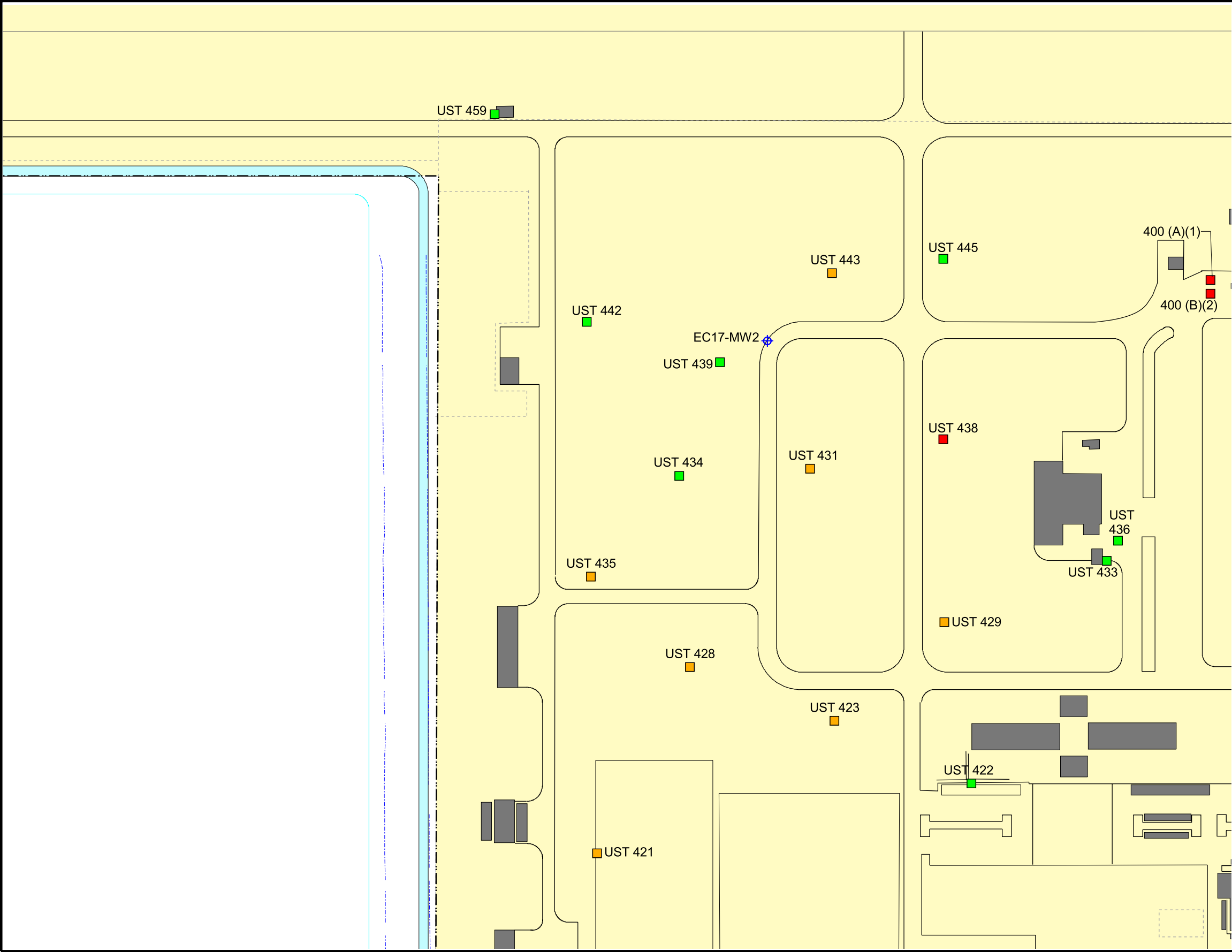


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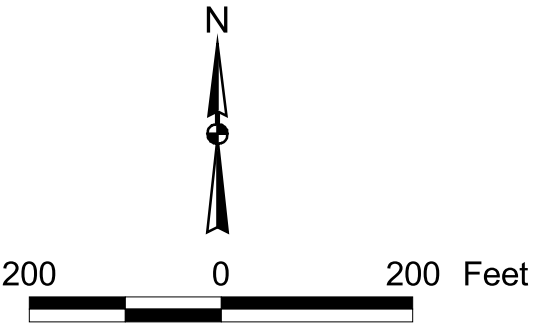


Tank Management Plan	
Figure 2-5	
UST Locations, Area 4	
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Tank Management Plan

Figure 2-6

UST Locations, Area 5

NAF El Centro, Imperial County, California

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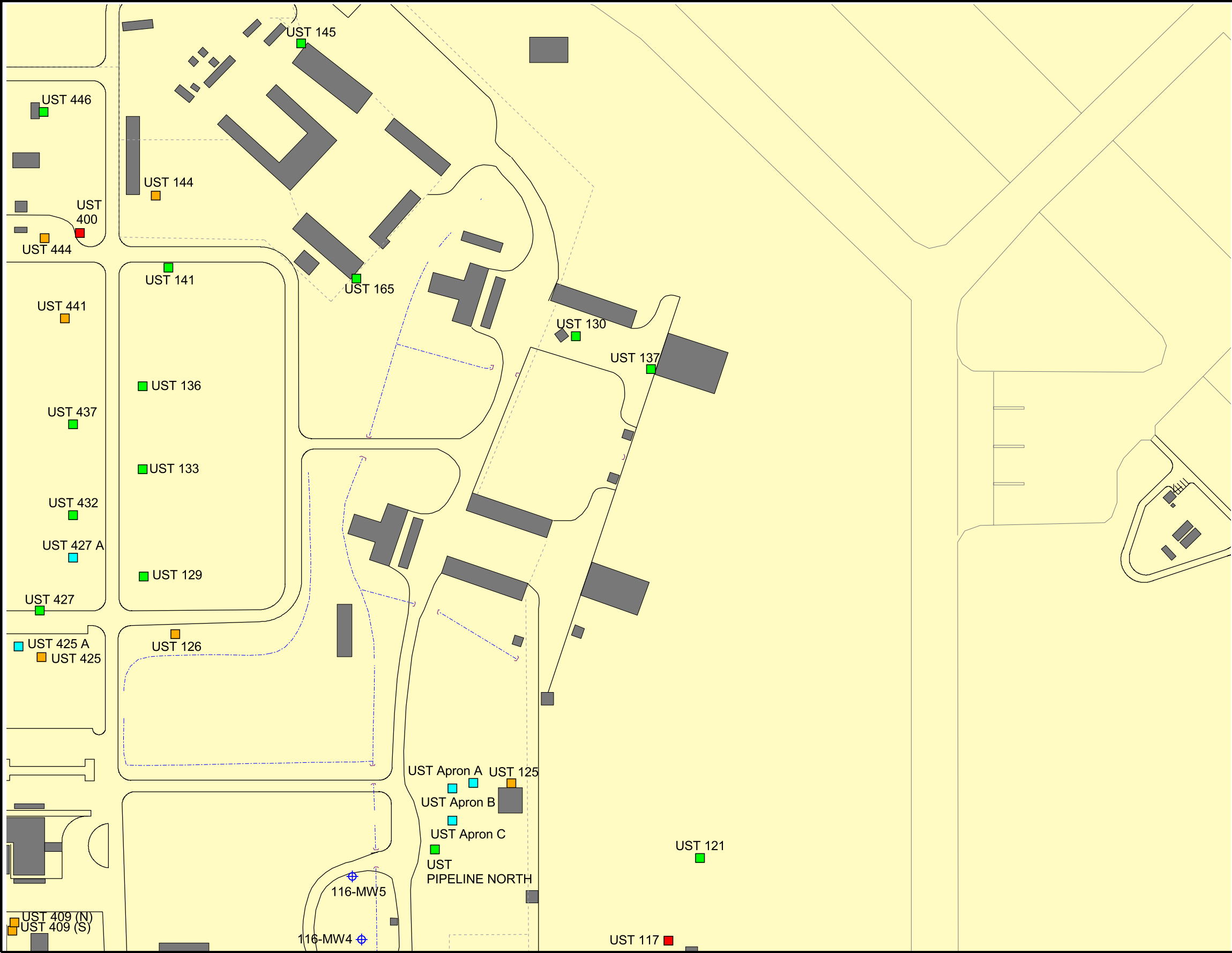
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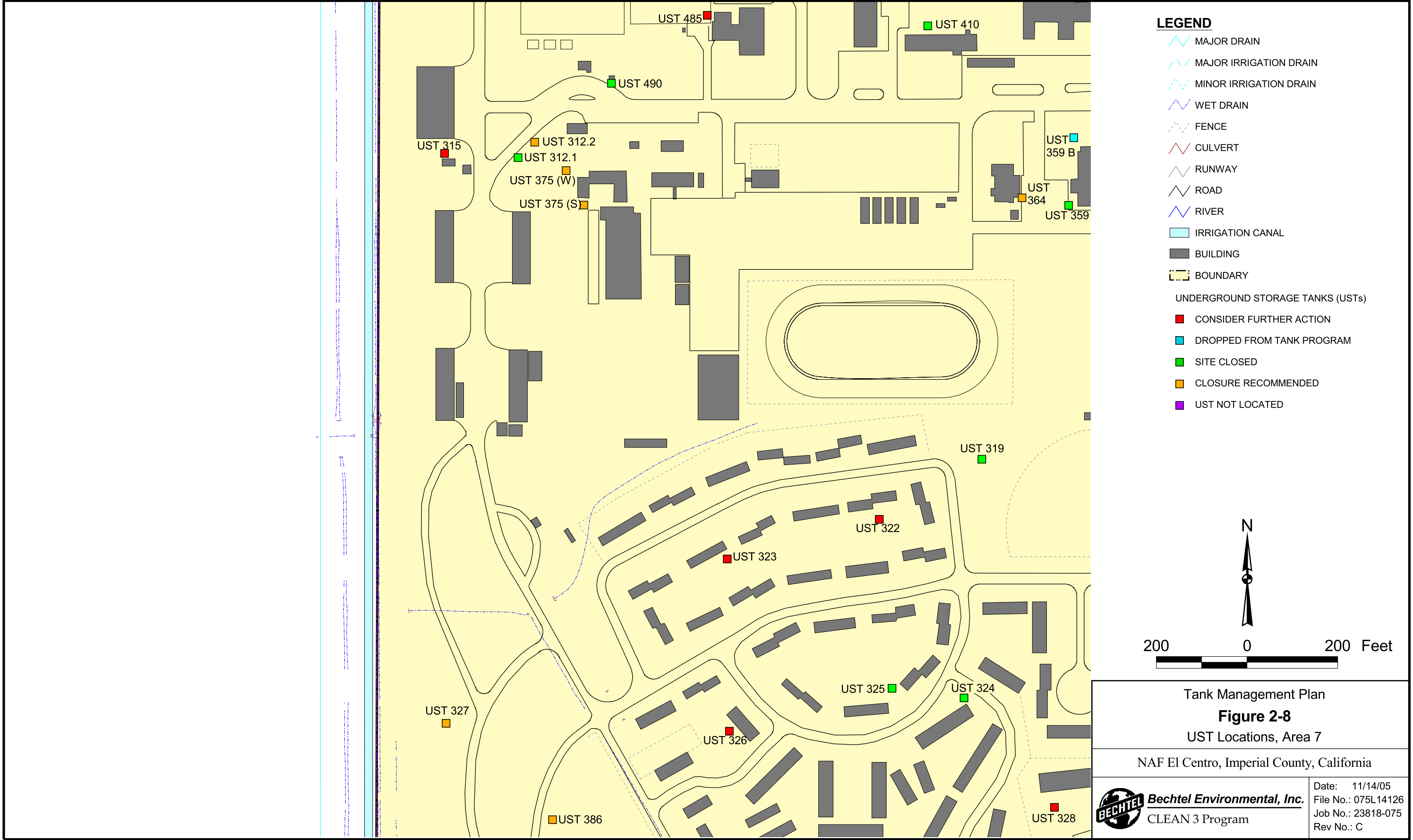
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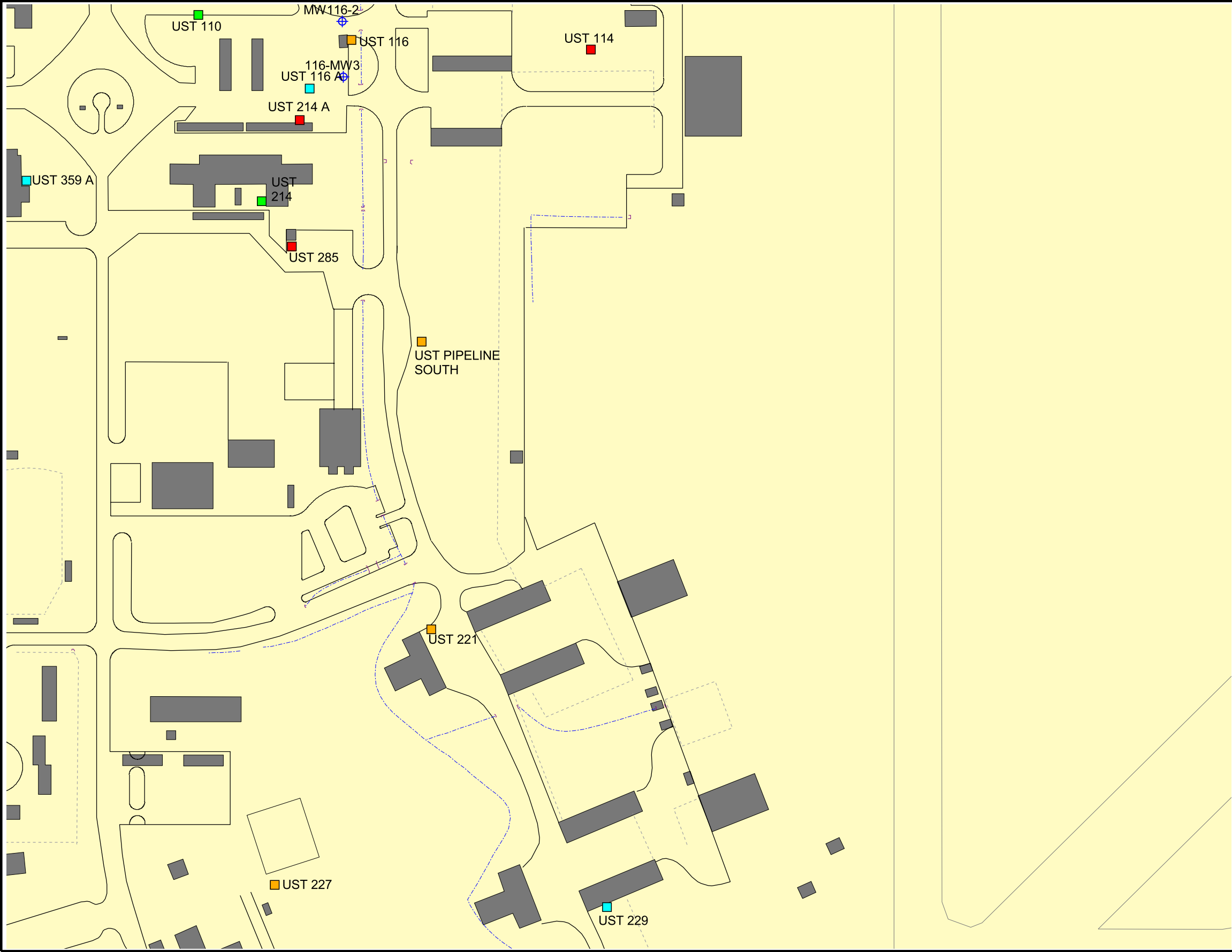
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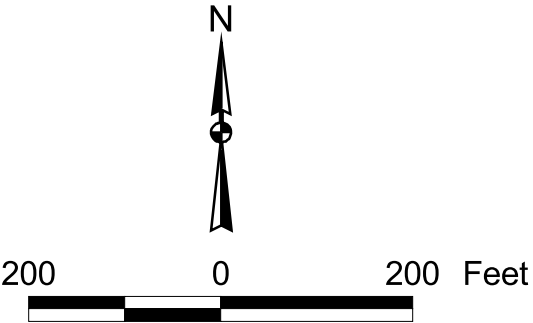
Tank Management Plan	
Figure 2-7	
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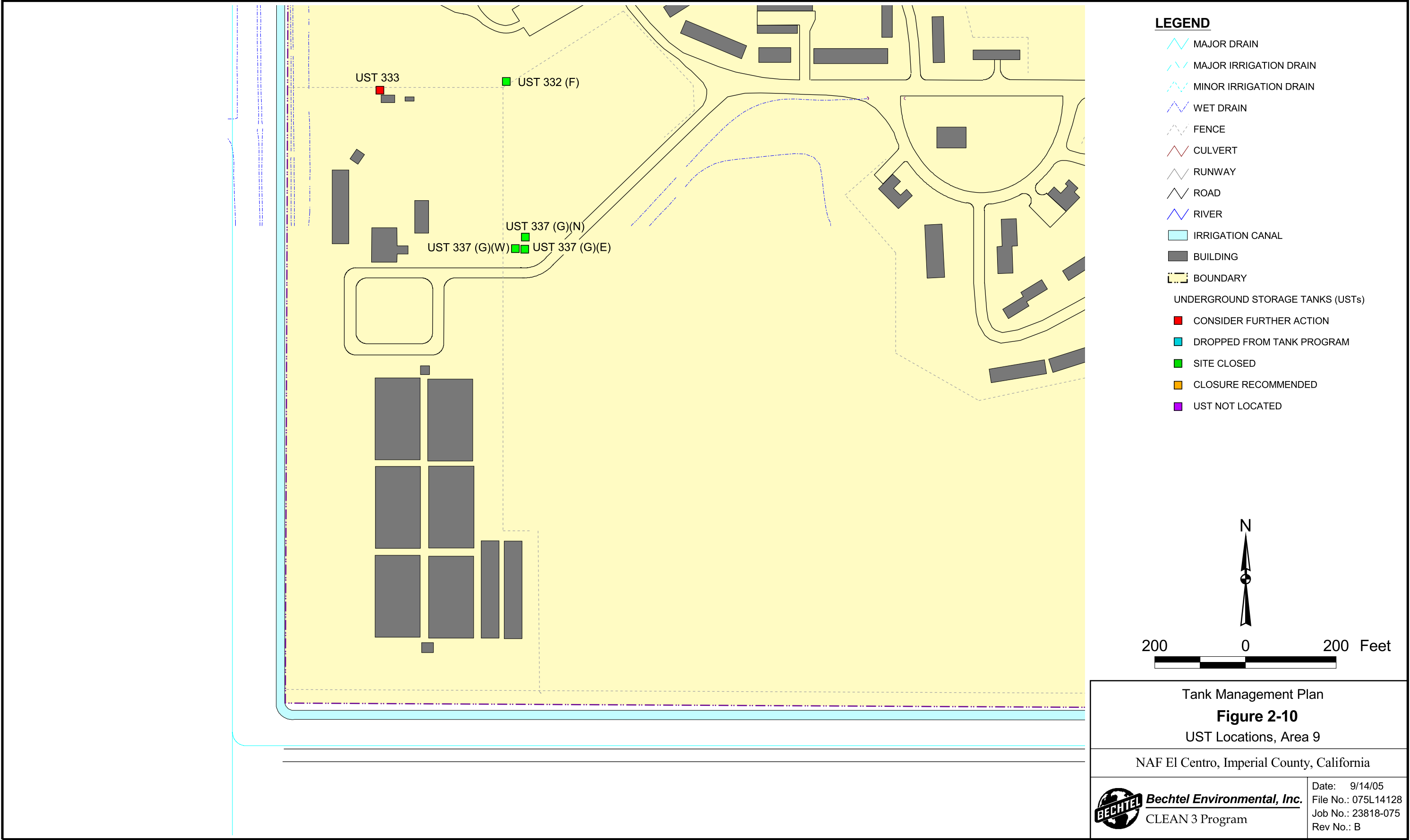


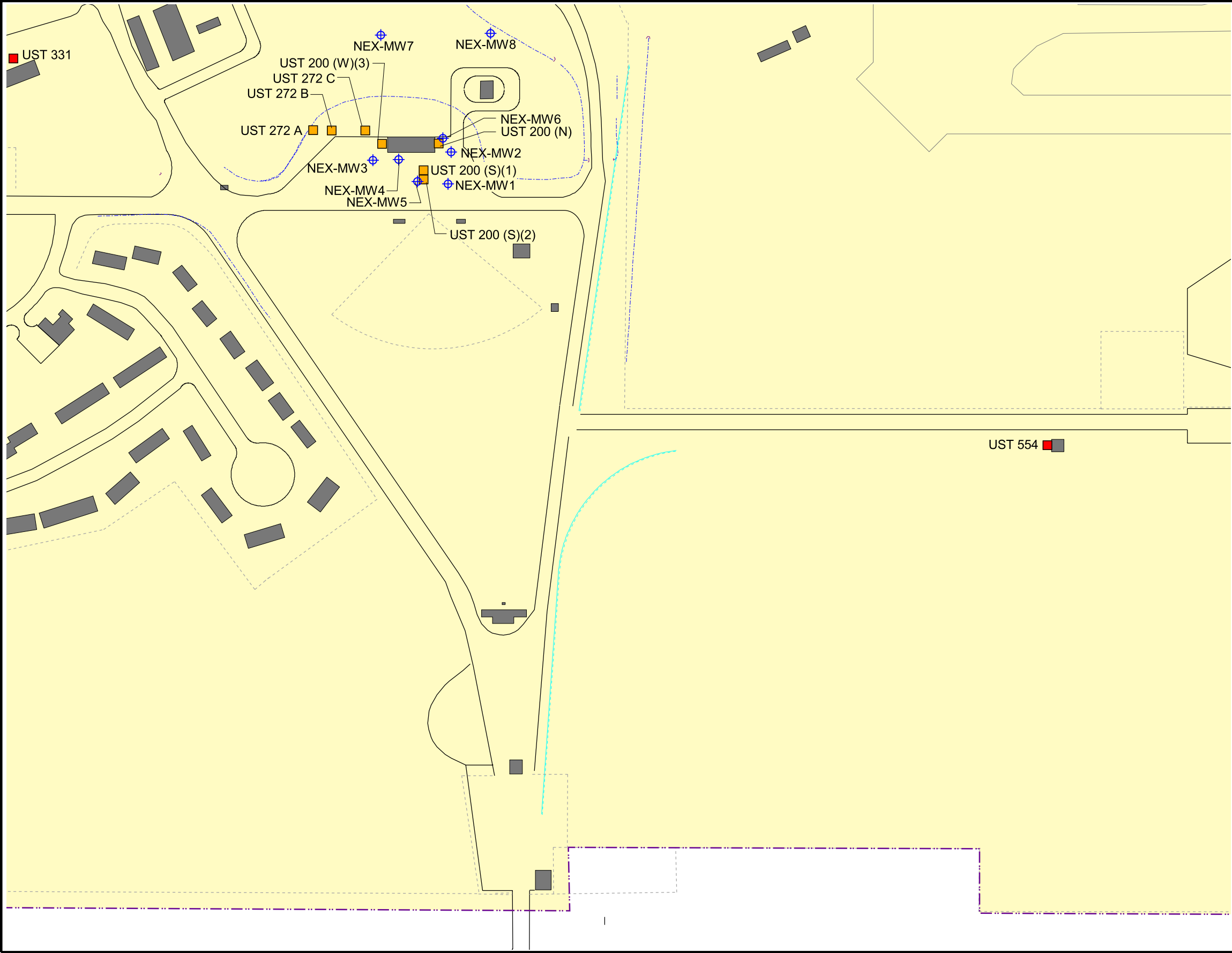
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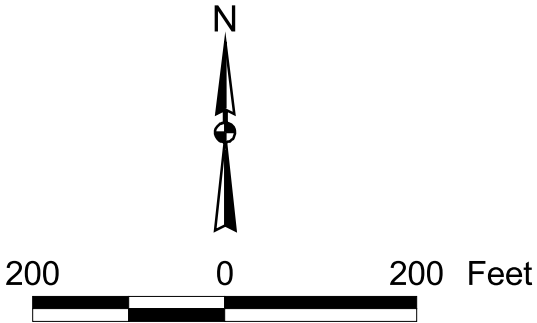
Tank Management Plan	
Figure 2-9	
UST Locations, Area 8	
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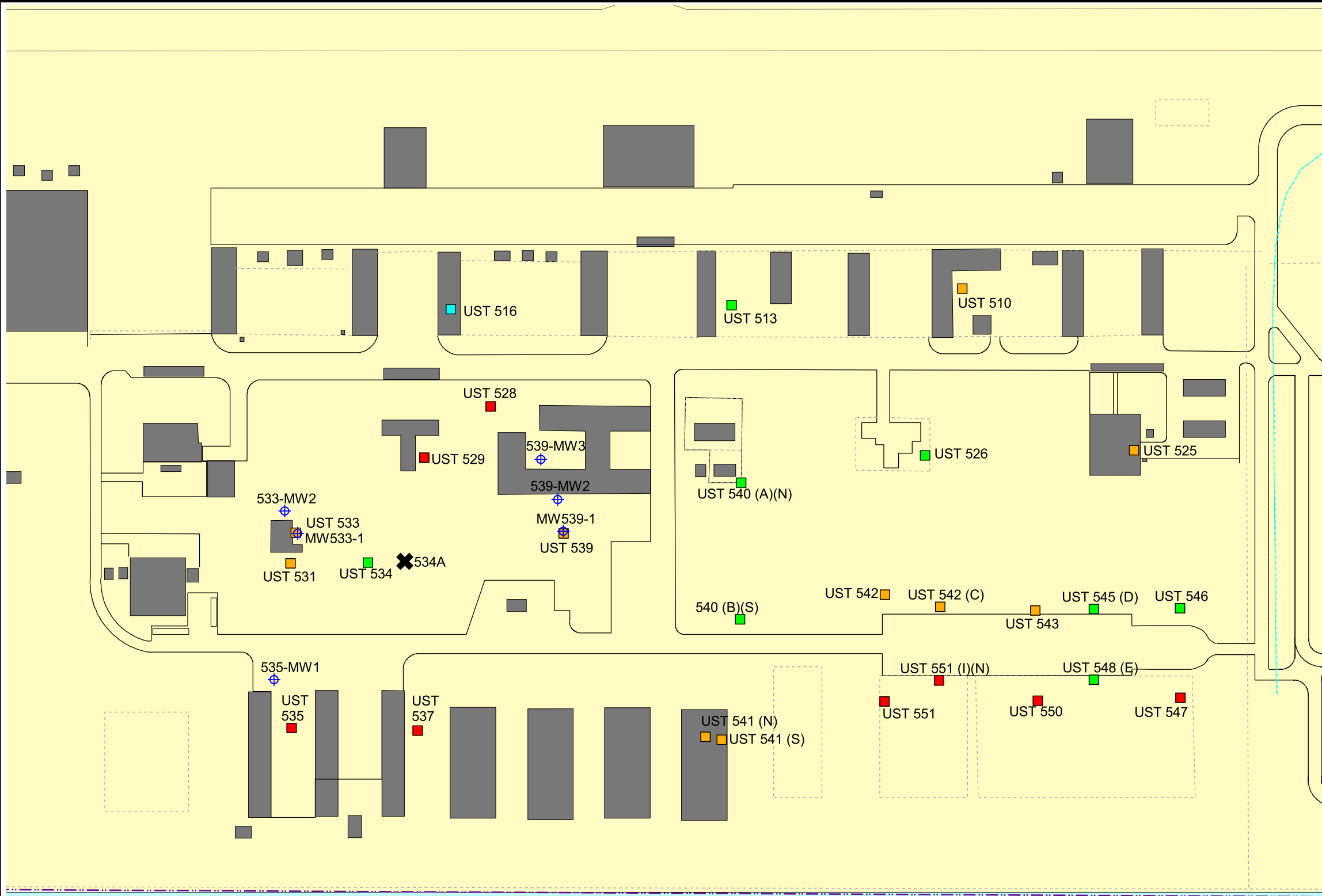


Tank Management Plan
Figure 2-11
UST Locations, Area 10

NAF El Centro, Imperial County, California

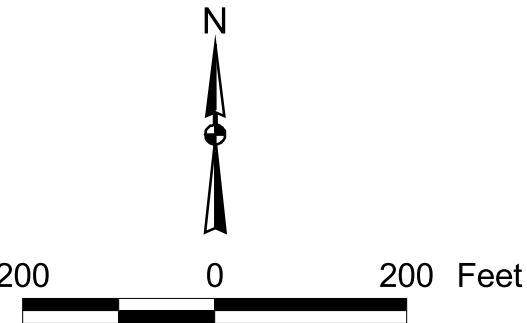
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Tank Management Plan

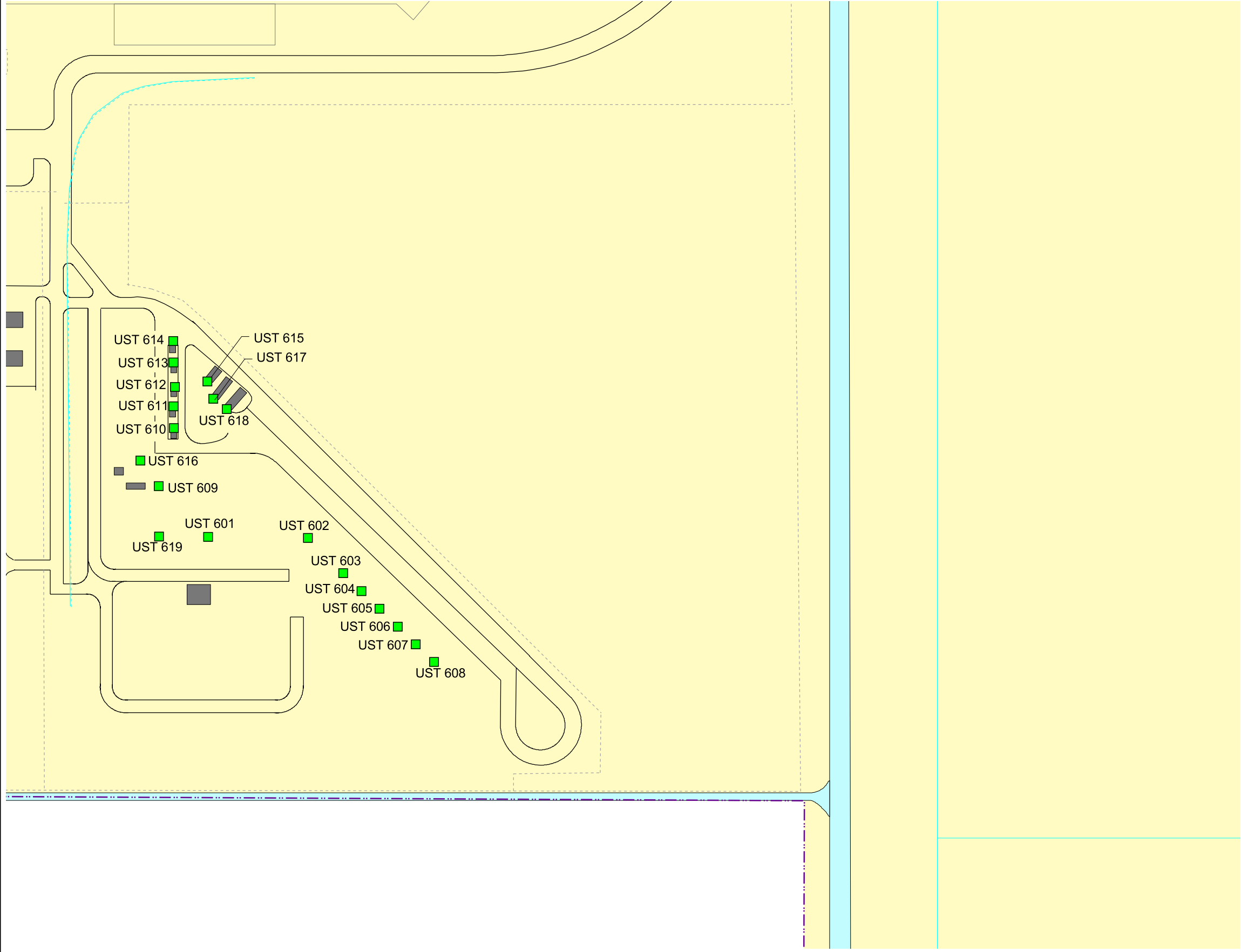
Figure 2-12

UST Locations, Area 11

NAF El Centro, Imperial County, California

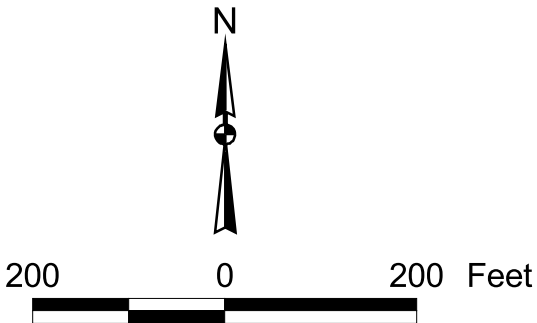
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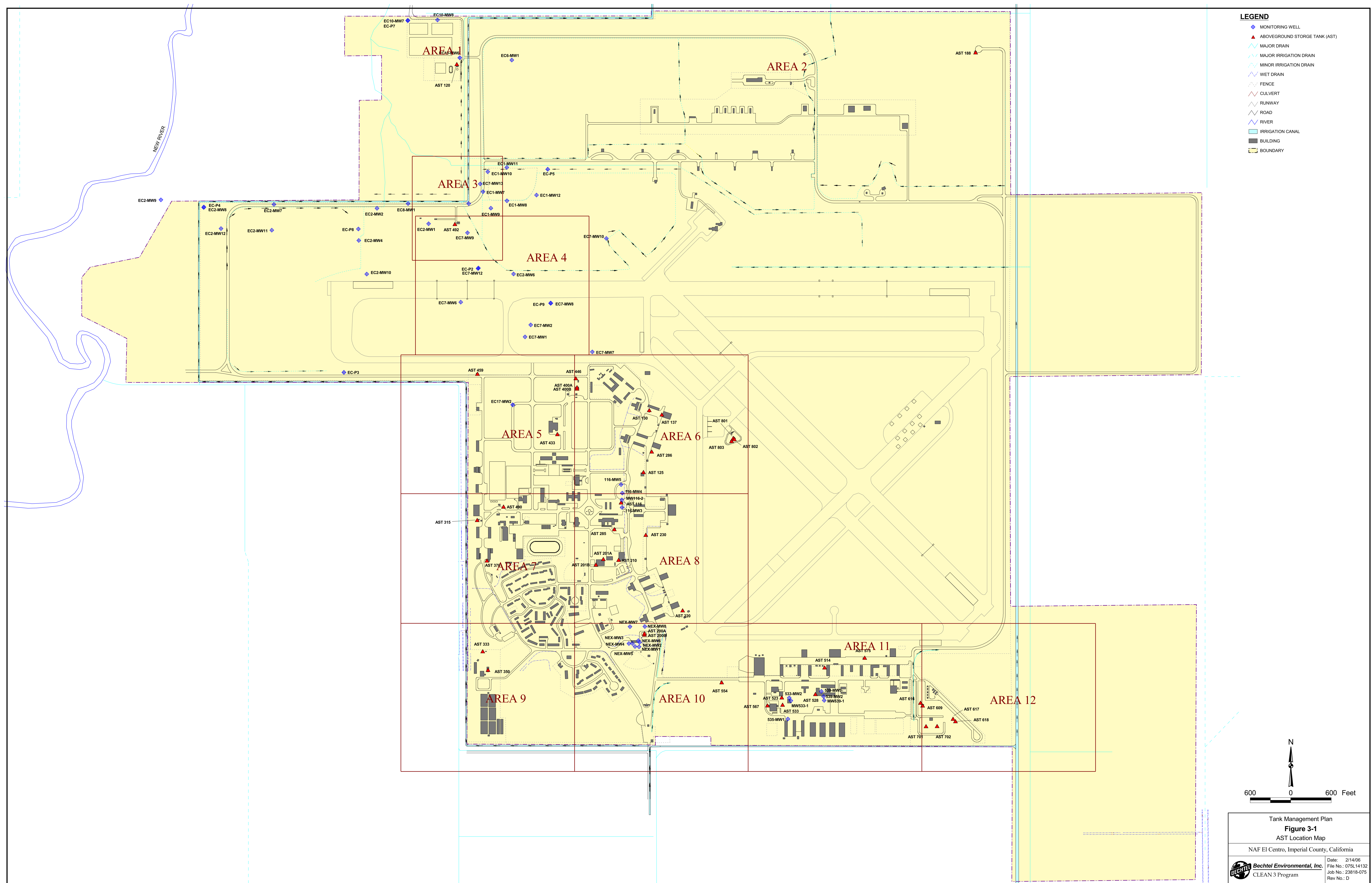


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Tank Management Plan	
Figure 2-13	
UST Locations, Area 12	
NAF El Centro, Imperial County, California	
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TABLES

**Table 1-1
Cleanup Levels for Soil and Groundwater**

Chemical	Soil Cleanup Concentration (mg/kg)	2004 PRGs for Industrial Soil (mg/kg)	Groundwater Maximum Allowable Concentration (µg/L)	2004 Groundwater Maximum Allowable Concentration (µg/L)
gasoline	100		NA	
diesel	1,000		NA	
benzene	1.4 ^a		1.0 ^b	
toluene	520 ^a		150 ^b	
ethylbenzene	230 ^a	400 ^c	700 ^b	300 ^d
total xylenes	210 ^a	420 ^c	1,750 ^b	
MTBE	NA	36	20 ^e	1.1 ^f
organolead	NA		NA	

Notes:

- ^a based on the 1998 United States Environmental Protection Agency (U.S. EPA) Region 9 preliminary remediation goal for industrial soil
- ^b based on the 1995 state of California maximum contaminant level for drinking water
- ^c based on the 2004 U.S. EPA Region 9 preliminary remediation goal for industrial soil
- ^d based on the 2004 state of California maximum contaminant level for drinking water
- ^e based on the 1998 U.S. EPA Region 9 preliminary remediation goal for tap water
- ^f based on the 2004 U.S. EPA Region 9 preliminary remediation goal for tap water

Acronyms/Abbreviations:

µg/L – micrograms per liter
mg/kg – milligrams per kilogram
MTBE – methyl-tert-butyl ether
NA – not applicable
PRG – preliminary remediation goal

**Table 2-1
Closed UST Sites**

Tank ID	Alias	Area ^a	Capacity (gallons)	Contents	Construction Materials	Year Installed	Year Removed	Comments/Notes
110		8	2,400	Diesel	Concrete	Unknown	1993	RWQCB closure 1/28/05
120		1	700	Diesel	Fiberglass	1978	2000	Below cleanup levels ^b (Geofon 2000)
121		6	2,400	Diesel	Concrete	Unknown	1986 ^c	Below cleanup levels (BNI 2000b)
129		6	500	Diesel	Concrete	Unknown	1994	Fully remediated (OHM 1995)
130		6	250	Diesel	Steel	1953	1993	Below cleanup levels (BNI 2000a)
133		6	500	Diesel	Concrete	Unknown	1994	Fully remediated (OHM 1995)
136		6	500	Diesel	Concrete	Unknown	1994	Fully remediated (OHM 1995)
137		6	300	Diesel	Steel	1942	1995	Below cleanup levels (BNI 2000a)
141		6	500	Diesel	Concrete	Unknown	1994	Fully remediated (OHM 1995)
145		6	275	Diesel	Unknown	Unknown	1993	Below cleanup levels (PWC 2004)
165		6	Unknown	Unknown	Unknown	Unknown	Unknown	Below cleanup levels (BNI 2000a)
214		8	500	Diesel	Steel	Unknown	1999	Below cleanup levels (BNI 2000c)
312.1		7	1,000	Gasoline	Steel	Unknown	1996	Below cleanup levels (BNI 2000a)
319		7	500	Fuel oil	Concrete	Unknown	Unknown	Below cleanup levels (BNI 2000c)
324		9	500	Fuel oil	Concrete	Unknown	Unknown	Below cleanup levels (BNI 2000c)
325		9	500	Fuel oil	Concrete	Unknown	Unknown	Below cleanup levels (BNI 2000c)
332 (F)		9	1,400	Diesel	Concrete	Unknown	1993	Fully remediated (OHM 1995)
337 (G)(E)		9	1,400	Diesel	Concrete	Unknown	1993	Fully remediated (OHM 1995)
337 (G)(N)		9	1,400	Diesel	Concrete	Unknown	1993	Fully remediated (OHM 1995)
337 (G)(W)		9	1,400	Diesel	Concrete	Unknown	1993	Fully remediated (OHM 1995)
359		7	1,500	Fuel oil	Concrete	Unknown	1999	Fully remediated (BNI 2000c)
410		7	1,500	Diesel	Concrete	Unknown	1993	Low risk to human health & environment
422		5	1,000	Unknown	Concrete	Unknown	1992	Below cleanup levels (BNI 2000a)
427		6	550	Diesel	Steel	1942	1992	Below cleanup levels (BNI 2000b)
432		6	500	Diesel	Concrete	Unknown	1994	Fully remediated (OHM 1995)
433		5	1,000	Diesel	Steel	1942	1995	Below cleanup levels (BNI 2000b)
434		5	500	Diesel	Concrete	Unknown	1994	Fully remediated (OHM 1995)

Table 2-1 (continued)

Tank ID	Alias	Area ^a	Capacity (gallons)	Contents	Construction Materials	Year Installed	Year Removed	Comments/Notes
436		5	1,000	Diesel	Concrete	1942	1994	Fully remediated (OHM 1995)
437		6	500	Diesel	Concrete	Unknown	1994	Fully remediated (OHM 1995)
439		5	500	Diesel	Concrete	Unknown	1994	Fully remediated (OHM 1995)
442		5	500	Diesel	Concrete	Unknown	Unknown	Below cleanup levels (BNI 2000b)
445		5	500	Diesel	Concrete	Unknown	1994	Fully remediated (OHM 1995)
446		6	250	Diesel	Steel	1942	1995	Below cleanup levels (BNI 2000b)
459		5	250	Diesel	Steel	1989	1993	Low risk to human health & environment
490		7	150	Diesel	Steel	Unknown	1993	Low risk to human health & environment
492		3	192	Diesel	Steel	Unknown	1993	Below cleanup levels (BNI 2000b)
513		11	1,800	Fuel oil	Concrete	Unknown	1999	Fully remediated (BNI 2000c)
526		11	1,400	Fuel oil	Unknown	Unknown	Unknown	Below cleanup levels (BNI 2000b)
534		11	1,400	Diesel	Concrete	Unknown	1990	Below cleanup levels (BNI 2000b); another UST suspected in this area based on 2005 geophysical data; this UST will be designated UST 534A
540 (A)(N)		11	1,400	Diesel	Concrete	Unknown	1993	Fully remediated (OHM 1995)
540 (B)(S)		11	1,400	Diesel	Concrete	Unknown	1993	Fully remediated (OHM 1995)
545 (D)		11	1,400	Diesel	Concrete	Unknown	1993	Fully remediated (OHM 1995)
546		12	1,400	Diesel	Concrete	Unknown	Unknown	Below cleanup levels (BNI 2000b)
548 (E)		11	1,400	Diesel	Concrete	Unknown	1993	Below cleanup levels (BNI 2000a)
601		12	567,000	Jet fuel	Steel	1953	1998	Fuel farm remediation (OHM 1997)
602		12	567,000	Jet fuel	Steel	Unknown	1998	Fuel farm remediation (OHM 1997)
603		12	42,000	Jet fuel	Steel	Unknown	1998	Fuel farm remediation (OHM 1997)
604		12	42,000	Jet fuel	Steel	Unknown	1995	Fuel farm remediation (OHM 1997)
605		12	42,000	Jet fuel	Steel	Unknown	1993	Fuel farm remediation (OHM 1997)
606		12	42,000	Jet fuel	Steel	Unknown	1993	Fuel farm remediation (OHM 1997)
607		12	42,000	Jet fuel	Steel	Unknown	1993	Fuel farm remediation (OHM 1997)
608		12	42,000	Jet fuel	Steel	Unknown	1993	Fuel farm remediation (OHM 1997)
609		12	Unknown	Unknown	Unknown	Unknown	Unknown	Fuel farm remediation (OHM 1997)
610		12	Unknown	Unknown	Unknown	Unknown	Unknown	Fuel farm remediation (OHM 1997)

Table 2-1 (continued)

Tank ID	Alias	Area ^a	Capacity (gallons)	Contents	Construction Materials	Year Installed	Year Removed	Comments/Notes
611		12	Unknown	Unknown	Unknown	Unknown	Unknown	Fuel farm remediation (OHM 1997)
612		12	Unknown	Unknown	Unknown	Unknown	Unknown	Fuel farm remediation (OHM 1997)
613		12	Unknown	Unknown	Unknown	Unknown	Unknown	Fuel farm remediation (OHM 1997)
614		12	Unknown	Unknown	Unknown	Unknown	Unknown	Fuel farm remediation (OHM 1997)
615		12	Unknown	Unknown	Unknown	Unknown	Unknown	Fuel farm remediation (OHM 1997)
616		12	2,000	Diesel	Steel	1953	1993	Fuel farm remediation (OHM 1997)
617		12	10,000	Waste fuel	Steel	1953	1995	Fuel farm remediation (OHM 1997)
618		12	10,000	Waste fuel	Steel	1953	1995	Fuel farm remediation (OHM 1997)
619		12	Unknown	Unknown	Unknown	Unknown	Unknown	No UST located
Pipeline North		6	10,000	Jet fuel	Steel	Unknown	1995	Below cleanup levels (BNI 2000b)
Pipeline South		8	10,000	Jet fuel	Steel	Unknown	1995	Pipeline removal (PWC 1995)
R-2512 (A)	R-68	^d	Unknown	Diesel	Concrete	Unknown	Unknown	Below cleanup levels (OHM 1999)
R-2512 (B)	R-95	^d	200	Diesel	Steel	Unknown	1999	No threat to groundwater (OHM 1999)
R-27 (B)		^d	1,400	Diesel	Concrete	Unknown	1994	Below cleanup levels (BNI 2000b)
Range 5000-1 (A)		^d	500	Diesel	Concrete	Unknown	Unknown	Below cleanup levels (OHM 1999)
Range 5000-2 (B)		^d	1,000	Diesel	Concrete	Unknown	1999	No threat to groundwater (OHM 1999)
Range 5000-3 (C)		^d	Unknown	Gasoline	Unknown	Unknown	Unknown	Below cleanup levels (OHM 1999)

Notes:

- ^a refers to area numbers on Figures 2-1 through 2-13
- ^b Table 1-1 lists cleanup levels for soil and maximum allowable levels for groundwater
- ^c tank was abandoned in place
- ^d remote locations are not shown on figures

Acronyms/Abbreviations:

RWQCB – (California) Regional Water Quality Control Board
 UST – underground storage tank

Table 2-2
UST Sites Pending Agency Closure Concurrence

Tank ID	Alias	Area ^a	Capacity (gallons)	Contents	Construction Materials	Year Installed	Year Removed	Comments/Notes
116		8	260	Diesel	Steel	1942	1989	Benzene and 1,2-dichloroethane only COCs in groundwater slightly exceeding cleanup levels; decreasing concentrations, no downgradient migration
125		6	350	Diesel	Steel	1985	1995	Groundwater below cleanup levels
126		6	500	Diesel	Concrete	Unknown	Unknown	UST found and removed by PWC
144		6	500	Diesel	Concrete	Unknown	Unknown	Groundwater below max allowable concentrations ^b
200 (N)		10	250	Waste oil	Steel	1967	1993	Soil excavated and disposed off-site; COCs in groundwater do not exceed cleanup levels
200 (S)(1)		10	10,000	Gasoline	Steel	1967	1993	Soil excavated and disposed off-site; COCs in groundwater do not exceed cleanup levels
200 (S)(2)		10	10,000	Gasoline	Steel	1967	1993	Soil excavated and disposed off-site; COCs in groundwater do not exceed cleanup levels
200 (W)(3)	200 (E)	10	10,000	Gasoline	Fiberglass	1974	1993	Soil excavated and disposed off-site; COCs in groundwater do not exceed cleanup levels
221		8	500	Diesel	Steel	Unknown	1996	Groundwater below max allowable levels
227		8	500	Diesel	Concrete	Unknown	1993	Soil remediated, benzene in groundwater exceeds cleanup standard
272 A	200	10	5,000	Gasoline	Steel	1964	1994	Soil excavated and disposed off-site; COCs in groundwater do not exceed cleanup levels
272 B		10	1,000	Gasoline	Unknown	Unknown	1964	Soil excavated and disposed off-site; COCs in groundwater do not exceed cleanup levels
272 C	200 (W)	10	10,000	Gasoline	Steel	Unknown	1993	Soil excavated and disposed off-site; COCs in groundwater do not exceed cleanup levels
312.2	311	7	5,000	Diesel	Steel	Unknown	1996	Groundwater below max allowable levels
327		9	500	Fuel oil	Concrete	Unknown	Unknown	Soil below cleanup levels
364		7	1,200	Unknown	Unknown	Unknown	1986 ^c	SCAPS groundwater sample indicates ND for BTEX/MTBE (PWC 10/21/04)
375 (S)		7	Unknown	Diesel	Concrete	Unknown	1993	Groundwater below max allowable levels
375 (W)		7	10,000	Diesel	Concrete	Unknown	1993	Groundwater below max allowable levels
386	329	9	2,400	Fuel oil	Concrete	Unknown	1996	Groundwater below max allowable levels

Table 2-2 (continued)

Tank ID	Alias	Area ^a	Capacity (gallons)	Contents	Construction Materials	Year Installed	Year Removed	Comments/Notes
409 (N)		6	2,500	Diesel	Concrete	Unknown	1993	Fully remediated (Geofon 2000)
409 (S)		6	2,500	Diesel	Concrete	Unknown	1993	Fully remediated (Geofon 2000)
421		5	500	Diesel	Concrete	Unknown	Unknown	UST found and removed by PWC
423		5	500	Fuel oil	Unknown	Unknown	Unknown	UST found and removed by PWC
425		6	550	Diesel	Steel	1942	1992	Groundwater below max allowable levels
428		5	500	Diesel	Concrete	Unknown	2002	Soil remediated, benzene and MTBE exceed cleanup levels
429		5	500	Fuel oil	Concrete	Unknown	Unknown	UST found and removed by PWC
431		5	2,400	Fuel oil	Concrete	Unknown	Unknown	UST found and removed by PWC
435		5	500	Diesel	Concrete	Unknown	Unknown	UST found and removed by PWC
441		6	500	Diesel	Concrete	Unknown	2002	Soil remediated, groundwater below cleanup standards
443		5	300	Diesel	Steel	Unknown	2003	Groundwater below max allowable levels
444		6	500	Fuel oil	Concrete	Unknown	Unknown	Below cleanup levels (BNI 2000b)
484		4	Unknown	Unknown	Unknown	Unknown	Unknown	IR Site 7 remediation in progress
510		11	500	Diesel	Concrete	Unknown	Unknown	Soil excavated; RWQCB requested analytical results for confirmation soil samples (6/29/05)
525		11	1,400	Diesel	Concrete	Unknown	Unknown	Groundwater below max allowable levels, UST location unknown due to presence of Building 525
531 ^c		11	1,400	Diesel	Concrete	Unknown	Unknown	Below cleanup levels (BNI 2000b); however, UST suspected based on geophysical data ^c
533		11	280	Diesel	Steel	1970	1990	Soil excavated and disposed off-site; COCs in groundwater do not exceed cleanup levels
539		11	1,000	Diesel	Concrete	1942	1990	Benzene only COC in groundwater at slightly above cleanup level; decreasing concentrations, no downgradient migration
541 (N)		11	1,800	Fuel oil	Concrete	Unknown	Unknown	Below cleanup levels (BNI 2000c)
541 (S)		11	1,800	Fuel oil	Concrete	Unknown	Unknown	Below cleanup levels (BNI 2000c)
542		11	1,400	Fuel oil	Unknown	Unknown	Unknown	Below cleanup levels (BNI 2000b)
542 (C)		11	1,400	Diesel	Concrete	Unknown	1993	Fully remediated (OHM 1995)
543		11	1,400	Diesel	Concrete	Unknown	Unknown	Below cleanup levels (BNI 2000b)

Table 2-2 (continued)

Notes:

- ^a refers to area numbers on Figures 2-1 through 2-13
- ^b Table 1-1 lists cleanup levels for soil and maximum allowable levels for groundwater
- ^c based on geophysical data collected by the Navy in 2005, a suspected UST was identified in this area; therefore, further investigation consisting of exploratory excavation is planned, and the status of this UST may be modified depending on the investigation results

Acronyms/Abbreviations:

BTEX – benzene, toluene, ethylbenzene, and xylenes
COC – chemical of concern
IR – Installation Restoration (Program)
max – maximum
MTBE – methyl tert-butyl ether
ND – nondetected
PWC – (Navy) Public Works Center
SCAPS – Site Characterization and Analysis Penetrometer System
UST – underground storage tank

Table 2-3
UST Sites Considered for Further Action

Tank ID	Alias	Area ^a	Capacity (gallons)	Contents	Construction Materials	Year Installed	Year Removed	Comments/Notes
114		8	1,400	Diesel	Concrete	Unknown	1993	Additional soil assessment requested (RWQCB 6/29/05)
117		6	500	Diesel	Steel	Unknown	1993	Soil impacted—Consider further action
198		2	150	Diesel	Steel	Unknown	1993	Partially remediated
214 A		8	1,400	Diesel	Concrete	Unknown	Unknown	Soil and groundwater impacted
285		8	250	Diesel	Steel	1961	1994	Partially remediated
315		7	250	Diesel	Steel	Unknown	1993	Additional soil samples requested to verify SCAPS results (RWQCB 6/29/05)
322		7	500	Fuel oil	Concrete	Unknown	Unknown	Soil and groundwater impacted, UST not located
323	7	500	Unknown	Fuel oil	Concrete	Unknown	Unknown	Consider further action
326	9	500	Unknown	Fuel oil	Concrete	Unknown	Unknown	Consider further action
328		9	500	Diesel	Concrete	Unknown	1993	RWQCB concurs w/remediation by excavation (RWQCB 6/29/05)
331		8	500	Diesel	Concrete	Unknown	1993	Soil and groundwater impacted
333		9	125	Gasoline	Steel	1948	1991	Additional soil and groundwater assessment requested (RWQCB 6/29/05)
400		6	Unknown	Gasoline	Unknown	Unknown	1994	Additional soil assessment requested (RWQCB 6/29/05)
400 (A)(1)		5	12,000	Gasoline/ diesel	Fiberglass	1982	1995	Additional groundwater assessment recommended 6 to 12 months after VEP system at IR Site 7 is shut down (RWQCB 6/29/05)
400 (B)(2)		5	12,000	Gasoline/ diesel	Fiberglass	1982	1995	Additional groundwater assessment recommended 6 to 12 months after VEP system at IR Site 7 is shut down (RWQCB 6/29/05)
438	486	5	500	Diesel	Concrete	Unknown	Unknown	Partially remediated
447 (O)		4	25,000	Gasoline	Concrete	1942	1993	IR Site 7 remediation in progress
448 (J)		4	50,000	Gasoline	Concrete	1942	1993	IR Site 7 remediation in progress
449 (P)		4	25,000	Gasoline	Concrete	1942	1993	IR Site 7 remediation in progress
451 (K)		4	50,000	Gasoline	Concrete	1942	1993	IR Site 7 remediation in progress
452 (Q)		4	25,000	Fuel oil	Concrete	1942	1993	IR Site 7 remediation in progress
453 (R)		4	25,000	Fuel oil	Concrete	1942	1993	IR Site 7 remediation in progress
454 (L)		4	50,000	Fuel oil	Concrete	1942	1993	IR Site 7 remediation in progress
455 (M)	445	4	50,000	Gasoline	Concrete	1942	1993	IR Site 7 remediation in progress
456 (S)	446	4	25,000	Gasoline	Concrete	1942	1993	IR Site 7 remediation in progress

Table 2-3 (continued)

Tank ID	Alias	Area ^a	Capacity (gallons)	Contents	Construction Materials	Year Installed	Year Removed	Comments/Notes
457 (N)		4	50,000	Gasoline	Concrete	1942	1994	IR Site 7 remediation in progress
458 (T)		4	25,000	Gasoline	Concrete	1942	1993	IR Site 7 remediation in progress
461		4	50,000	Gasoline	Concrete	1942	1954 ^b	IR Site 7 remediation in progress
462		4	25,000	Gasoline	Concrete	1942	1954 ^b	IR Site 7 remediation in progress
463		4	25,000	Gasoline	Concrete	1942	1954 ^b	IR Site 7 remediation in progress
464		4	50,000	Gasoline	Concrete	1942	1954 ^b	IR Site 7 remediation in progress
465		4	50,000	Gasoline	Concrete	1942	1954 ^b	IR Site 7 remediation in progress
466		4	25,000	Gasoline	Concrete	1942	1954 ^b	IR Site 7 remediation in progress
467		4	50,000	Gasoline	Concrete	1942	1954 ^b	IR Site 7 remediation in progress
468		4	25,000	Gasoline	Concrete	1942	1954 ^b	IR Site 7 remediation in progress
469		4	50,000	Gasoline	Concrete	1942	1954 ^b	IR Site 7 remediation in progress
471		4	50,000	Gasoline	Concrete	1942	1954 ^b	IR Site 7 remediation in progress
472		4	25,000	Gasoline	Concrete	1942	1954 ^b	IR Site 7 remediation in progress
473		4	50,000	Gasoline	Concrete	1942	1954 ^b	IR Site 7 remediation in progress
485		7	1,400	Diesel	Concrete	Unknown	1994	Work Plan for additional assessment approved by RWQCB
528		11	5,000	Diesel	Steel	Unknown	1996	Additional soil and groundwater assessment requested (RWQCB 6/29/05)
529		11	1,400	Diesel	Concrete	Unknown	1993	Partially remediated
531		11	1,400	Diesel	Concrete	Unknown	Unknown	UST suspected in this area based on geophysical data ^c
534A		11	Unknown	Unknown	Unknown	Unknown	Unknown	Another UST suspected in this area based on geophysical data
535		11	1,400	Diesel	Concrete	Unknown	1999	Partially remediated
537		11	1,400	Diesel	Concrete	Unknown	1993	PWC recommended soil excavation (10/21//04)—RWQCB agrees with need for further assessment and remediation after Building 537 demolished; recommends land-use controls for the site (RWQCB 6/29/05)
547		12	1,400	Diesel	Concrete	Unknown	Unknown	RWQCB concurs with recommendation for soil excavation (RWQCB 6/29/05)
550		11	1,400	Diesel	Concrete	Unknown	Unknown	Clarification on potential location of UST 550 and additional sample at this location was requested (RWQCB 6/29/05)
551		11	1,400	Diesel	Unknown	Unknown	Unknown	One additional soil sample requested (RWQCB 6/29/05)

Table 2-3 (continued)

Tank ID	Alias	Area^a	Capacity (gallons)	Contents	Construction Materials	Year Installed	Year Removed	Comments/Notes
551 (I)(N)		11	1,400	Diesel	Concrete	Unknown	1993	At least one additional confirmation soil sample requested (RWQCB 6/29/05)
554		11	Unknown	Diesel	Steel	Unknown	1992	Soil and groundwater impacted

Notes:

^a refers to area numbers on Figures 2-1 through 2-13

^b tank was abandoned in place

^c UST 531 is also listed on Table 2-2

Acronyms/Abbreviations:

IR – Installation Restoration (Program)

PWC – (Navy) Public Works Center

RWQCB – (California) Regional Water Quality Control Board

SCAPS – Site Characterization and Analysis Penetrometer System

UST – underground storage tank

VEP – vacuum-enhanced pumping

**Table 2-4
Status of USTs Not Located**

Tank ID	Area^a	Capacity (gallons)	Contents	Construction Materials	Year Installed	Year Removed	Site Status
144	6	500	Diesel	Concrete	Unknown	Unknown	Pending closure concurrence (see Table 2-2)
214A	8	1,400	Diesel	Concrete	Unknown	Unknown	Consider further action (see Table 2-3); UST suspected in this area based on geophysical data
322	7	500	Fuel oil	Concrete	Unknown	Unknown	Consider further action (see Table 2-3)
323	7	500	Fuel oil	Concrete	Unknown	Unknown	Consider further action (see Table 2-3)
326	9	500	Fuel oil	Concrete	Unknown	Unknown	Consider further action (see Table 2-3)
327	9	500	Fuel oil	Concrete	Unknown	Unknown	Pending closure concurrence (see Table 2-2)
442	5	500	Diesel	Concrete	Unknown	Unknown	Closed (see Table 2-1)
444	6	500	Fuel oil	Concrete	Unknown	Unknown	Pending closure concurrence (see Table 2-2)
526	11	1,400	Fuel oil	Unknown	Unknown	Unknown	Closed (see Table 2-1)
531	11	1,400	Diesel	Concrete	Unknown	Unknown	Consider further action (see Table 2-3); UST suspected in this area based on geophysical data ^b
534A	11	Unknown	Unknown	Unknown	Unknown	Unknown	Consider further action (see Table 2-3); another UST suspected in this area based on geophysical data
541(N)	11	1,800	Fuel oil	Concrete	Unknown	Unknown	Pending closure concurrence (see Table 2-2)
541(S)	11	1,800	Fuel oil	Concrete	Unknown	Unknown	Pending closure concurrence (see Table 2-2)
543	11	1,400	Diesel	Concrete	Unknown	Unknown	Pending closure concurrence (see Table 2-2)
546	12	1,400	Diesel	Concrete	Unknown	Unknown	Closed (see Table 2-1)
547	12	1,400	Diesel	Concrete	Unknown	Unknown	Consider further action (see Table 2-3)
550	11	1,400	Diesel	Concrete	Unknown	Unknown	Consider further action (see Table 2-3)
551	11	1,400	Diesel	Unknown	Unknown	Unknown	Consider further action (see Table 2-3)
525	11	1,400	Diesel	Concrete	Unknown	Unknown	UST location unknown due to presence of Building 525; pending closure concurrence (see Table 2-2)

Notes:

^a refers to area numbers on Figures 2-1 through 2-13; locations, where provided, are approximate

^b UST 531 was also recommended for site closure in the draft report submitted to the RWQCB; however, this status may change pending further investigation (exploratory trenching)

Acronyms/Abbreviations:

RWQCB – (California) Regional Water Quality Control Board

UST – underground storage tank

Table 2-5
Sites Dropped From Tank Program

Tank ID	Area^a	Capacity (gallons)	Contents	Construction Materials	Year Installed	Year Removed	Comments
116 A	8	Unknown	Unknown	Unknown	Unknown	Unknown	No indication of a tank
229	8	1,500	Diesel	Steel	Unknown	Unknown	No indication of a tank
359 A	8	Unknown	Unknown	Unknown	Unknown	Unknown	No indication of a tank
359 B	7	Unknown	Unknown	Unknown	Unknown	Unknown	No indication of a tank
417	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	No indication of a tank
425 A	6	Unknown	Unknown	Unknown	Unknown	Unknown	No indication of a tank
427 A	6	Unknown	Unknown	Unknown	Unknown	Unknown	No indication of a tank
516	11	Unknown	Unknown	Unknown	Unknown	Unknown	No indication of a tank
Apron A	6	20,000	Unknown	Concrete	Unknown	Unknown	Aboveground tank
Apron B	6	25,000	Unknown	Concrete	Unknown	Unknown	Aboveground tank
Apron C	6	42,000	Unknown	Concrete	Unknown	Unknown	Aboveground tank
H	10	1,400	Diesel	Steel	Unknown	Unknown	No indication of a tank
SFPPL	12	500	Jet fuel	Steel	1953	Unknown	Not a tank

Note:

* refers to area numbers on Figures 2-1 through 2-13; locations, where provided, are approximate

Acronym/Abbreviation:

SFPPL – Santa Fe Pacific Pipeline

Table 2-6
Tank Sites to Be Addressed Under the Formerly Used Defense Sites Program

Tank ID	Area	Capacity (gallons)	Contents	Construction Materials	Year Installed	Year Removed
OH-01	Old housing area	Unknown	Unknown	Unknown	Unknown	Unknown
OH-02	Old housing area	Unknown	Unknown	Unknown	Unknown	Unknown
OH-03	Old housing area	Unknown	Unknown	Unknown	Unknown	Unknown
OH-04	Old housing area	Unknown	Unknown	Unknown	Unknown	Unknown
OH-05	Old housing area	Unknown	Unknown	Unknown	Unknown	Unknown
OH-06	Old housing area	Unknown	Unknown	Unknown	Unknown	Unknown
OH-07	Old housing area	Unknown	Unknown	Unknown	Unknown	Unknown
OH-08	Old housing area	Unknown	Unknown	Unknown	Unknown	Unknown
OH-09	Old housing area	Unknown	Unknown	Unknown	Unknown	Unknown
OH-10	Old housing area	Unknown	Unknown	Unknown	Unknown	Unknown
OH-11	Old housing area	Unknown	Unknown	Unknown	Unknown	Unknown
OH-12	Old housing area	Unknown	Unknown	Unknown	Unknown	Unknown
OH-13	Old housing area	Unknown	Unknown	Unknown	Unknown	Unknown
OH-14	Old housing area	Unknown	Unknown	Unknown	Unknown	Unknown
OH-15	Old housing area	Unknown	Unknown	Unknown	Unknown	Unknown
OH-16	Old housing area	Unknown	Unknown	Unknown	Unknown	Unknown
OH-17	Old housing area	Unknown	Unknown	Unknown	Unknown	Unknown
OH-18	Old housing area	Unknown	Unknown	Unknown	Unknown	Unknown
OH-19	Old housing area	Unknown	Unknown	Unknown	Unknown	Unknown
OH-20	Old housing area	Unknown	Unknown	Unknown	Unknown	Unknown
OH-21	Old housing area	Unknown	Unknown	Unknown	Unknown	Unknown
OH-22	Old housing area	Unknown	Unknown	Unknown	Unknown	Unknown
OH-23	Old housing area	Unknown	Unknown	Unknown	Unknown	Unknown
OH-24	Old housing area	Unknown	Unknown	Unknown	Unknown	Unknown
OH-25	Old housing area	Unknown	Unknown	Unknown	Unknown	Unknown
OH-26	Old housing area	Unknown	Unknown	Unknown	Unknown	Unknown

Table 3-1
Aboveground Storage Tanks

Tank ID	Area	Capacity (gallons)	Contents	Year Installed	Secondary Containment	Overfill Protection	Liquid Level Indicator	Recommended Inspection Frequency^a	Recommendations from Spill Prevention Control and Countermeasure Plan^b
116	Bldg 116, Sewage Lift Station	110	Diesel	Unknown	Steel container	Overfill box	Manual	Monthly	Provide adsorbent.
120	Bldg 120, Sewage Treatment Plant	110	Diesel	1992	Unknown	Unknown	Unknown	Monthly	Provide adsorbent.
125	Bldg 125, Airfield Lighting	110	Diesel	1995	Steel container	Overfill box	Manual	Monthly	Provide adsorbent.
130	Bldg 130, Control Tower	300	Diesel	1992	Steel container	Overfill box	Manual	Monthly	Provide adsorbent.
137	Bldg 137, Fire Station	250	Diesel	1995	Steel container	Overfill box	Manual	Monthly	None.
188	Bldg 188	250	Diesel	Unknown	None	Unknown	Unknown	Monthly	None.
200A	Bldg 200, NEX Service Station	10,000	Unleaded gasoline	1993	Concrete berm	Unknown	Auto gauging system	Daily	Inspect tanks and supply results to Environmental Department. Provide adsorbent. Confirm type of underground piping. Install cathodic protection as required.
200B	Bldg 200, NEX Service Station	10,000	Unleaded gasoline	1993	Concrete berm	Unknown	Auto gauging system	Daily	(see 200A)
201A	Bldg 201, Navy Exchange	50	Gasoline	Unknown	Unknown	None	Unknown	Monthly	Provide adsorbent.
201B	Bldg 201, Navy Exchange	50	Diesel	1992	Unknown	None	Unknown	Monthly	Provide adsorbent.
210	Bldg 210, Commissary	10	Diesel	Unknown	Unknown	None	Unknown	Monthly	Upgrade AST with secondary containment. Provide adsorbent.
220	Bldg 220, Smoke Oil Tank	5,000	Smoke oil	1997	Steel container	Warning light	Unknown	Monthly	Post warning signs and labels. Perform and document inspections and submit reports to Environmental Department. Provide adsorbent at tank. Provide fire extinguishers.
230	Bldg 230, Auxiliary Beacon	110	Diesel	Unknown	Unknown	None	Unknown	Monthly	None.
285	Bldg 285, Emergency Generator	110	Diesel	1992	Steel container	Overfill box	Manual	Monthly	Provide adsorbent.
286	Bldg 286, Wells Air Start – North	100	Water/oil waste	Unknown	Unknown	Unknown	Unknown	Monthly	Install bollards around AST. Provide labels and warning signs. Provide adsorbent.
315	Bldg 315, Emergency Generator	500	Diesel	1992	Concrete	Warning light	Yes	Monthly	Provide adsorbent.
333	Bldg 333, Pumping Station	100	Diesel	Unknown	Unknown	Unknown	Unknown	Monthly	Provide adsorbent for AST. Provide secondary containment for tank and drums.
350	Bldg 350, Water Control/Lab	120	Diesel	Unknown	Unknown	Unknown	Unknown	Monthly	Provide secondary containment.
378	Bldg 378, Wash Rack	100	Diesel	Unknown	Steel container	Overfill box	Manual	Monthly	None.
400A	Bldg 400, PWC Service Station	10,000	Unleaded gasoline	1995	Concrete berm, double-walled	High-level alarm	Auto gauging system	Daily	Perform and document inspections and submit reports to Environmental Department.
400B	Bldg 400, PWC Service Station	10,000	Diesel	1995	Concrete berm, double-walled	High-level alarm	Auto gauging system	Daily	(See 400A)
433	Bldg 433, Emergency Generator	100	Diesel	1995	Steel container	Overfill box	Manual	Monthly	Provide adsorbent.
446	Bldg 446, Sewage Lift Station	100	Diesel	1995	Steel container	Overfill box	Manual	Monthly	Provide adsorbent.
459	Bldg 459, Sewage Lift Station	200	Diesel	1992	Unknown	Overfill box	Sight glass tube	Monthly	Provide adsorbent. Provide warning sign.
490	Bldg 490, Emergency Generator	200	Diesel	1992	Unknown	Overfill box	Unknown	Monthly	Provide secondary containment. Provide adsorbent.
492	Bldg 492, Radar Equipment	110	Diesel	Unknown	Unknown	Unknown	Unknown	Monthly	Secure fuel tank stand. Provide adsorbent.
514	Bldg 514, NAVAIR NC-8 Shop	28	Diesel	Unknown	Steel basin	None	Manual	Monthly	Secure AST from overturning.
523	Bldg 523, Medical/Dental Clinic	600	Diesel	Unknown	Concrete sump	Unknown	Unknown	Monthly	Provide adsorbent.
528	Bldg 528, Special Warfare	110	Diesel	Unknown	Unknown	Unknown	Unknown	Monthly	Provide adsorbent.
533	Bldg 533, Deluge Pump House	300	Diesel	2005	Steel container	Overfill box	Unknown	Monthly	Provide adsorbent.
554	Bldg 554, Sewage Lift Station	40	Diesel	Unknown	Unknown	Unknown	Unknown	Monthly	Construct berm across doorway for containment. Provide adsorbent.

Table 3-1 (continued)

Tank ID	Area	Capacity (gallons)	Contents	Year Installed	Secondary Containment	Overfill Protection	Liquid Level Indicator	Recommended Inspection Frequency ^a	Recommendations from Spill Prevention Control and Countermeasure Plan ^b
567	Bldg 567, Emergency Generator	200	Diesel	Unknown	Unknown	Unknown	Unknown	Monthly	Provide adsorbent.
575	Bldg 575, Wells Air Start – South	100	Water/oil waste	Unknown	Unknown	Unknown	Unknown	Monthly	Label tank. Install bollards for protection from vehicle traffic.
609	Bldg 609, Fuel Farm Control	40	Diesel	Unknown	Unknown	Unknown	Manual	Monthly	Provide adsorbent.
616	Bldg 619, Emergency Generator	200	Diesel	Unknown	Unknown	Unknown	Sight glass tube	Monthly	Provide adsorbent.
617	Fuel Farm	5,000	Off-spec fuel	1995	Concrete berm, double-walled	Auto shutoff	Auto gauging system	Monthly	Provide results of quarterly and annual inspection to Environmental Department.
618	Fuel Farm	5,000	Off-spec fuel	1995	Concrete berm, double-walled	Auto shutoff	Auto gauging system	Monthly	Provide results of quarterly and annual inspection to Environmental Department.
701	Fuel Farm	792,000	JP-5	1998	Concrete berm	High-level alarm	Auto gauging system	Daily	Provide results of quarterly and annual inspection to Environmental Department.
702	Fuel Farm	792,000	JP-5	1998	Concrete berm	High-level alarm	Auto gauging system	Daily	Provide results of quarterly and annual inspection to Environmental Department.
801	Jet Fueling Areas	30,000	JP-5	1998	Concrete berm	High-level alarm	Auto gauging system	Daily	Install spill containment around fueling pad. Replace float-operated sump pump with switch-operated pump. Perform and document inspections and submit reports.
802	Jet Fueling Areas	30,000	JP-5	1998	Concrete berm	High-level alarm	Auto gauging system	Daily	(See 801)
803	Jet Fueling Areas	2,900	JP-5 (recovery)	1998	Concrete berm	High-level alarm	Auto gauging system	Monthly	(See 801)

Notes:
^a details provided in Spill Prevention Control and Countermeasure Plan (SWDIV 1999)
^b from Integrated Emergency Plan, Section 6.0 (CDM 1997)

Acronyms/Abbreviations:
AST – aboveground storage tank
Bldg – building
JP-5 – jet propellant grade 5
NEX – Navy Exchange
PWC – (Navy) Public Works Center